

THE  
GEORGE  
WASHINGTON  
UNIVERSITY

CATALOGUE



CONTENTS

Summer Sessions Bulletin 1950

Law School Bulletin 1950-51

School of Medicine Bulletin 1950-51

Composite Catalogue 1950-51

School of Education Bulletin 1950-51

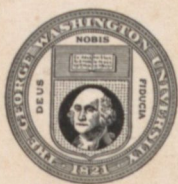
Comptroller's Report 1950

Summaries of Doctoral Dissertations  
1949 and 1950

\*\*\*



The  
George Washington University  
Library



**DOES NOT  
CIRCULATE**



THE SUMMER SESSIONS

1950



THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

---

VOL. XLIX

No. 2

---

THE SUMMER SESSIONS

---

WASHINGTON, D. C.

PUBLISHED IN APRIL  
MCML

BY THE UNIVERSITY



SPEC

LD

1907

.A1

V. 49

1950/51

WASHINGTON  
UNIVERSITY

BULLETIN

No. 2

Vol. XIX

THE SUMMER SESSIONS

WASHINGTON, D. C.

PUBLISHED IN APRIL

MCM

BY THE UNIVERSITY

~~723972~~



# CONTENTS

	PAGE
CALENDAR OF THE SUMMER SESSIONS.....	vi
THE UNIVERSITY .....	i
The Board of Trustees .....	3
Officers of Administration .....	4
History and Organization .....	6
Academic Status .....	6
Location .....	7
Educational Facilities .....	8
Other Library Facilities in Washington .....	8
Research Facilities of Washington.....	8
THE SUMMER SESSIONS.....	9
Staff of Instruction .....	11
Admission .....	16
Registration .....	17
Fees and Financial Regulations .....	17
University Regulations .....	19
Student Life .....	20
Veterans Education .....	21
THE COLLEGES, SCHOOLS, AND DIVISIONS.....	23
The Junior College .....	25
Columbian College (the senior college).....	25
The Graduate Council .....	27
The Law School .....	27
The School of Engineering .....	28
The School of Education .....	28
The School of Government .....	29
Foreign Service Examination Review Course .....	29
The Division of University Students .....	30
The Division of Special Students .....	30
COURSES OF INSTRUCTION .....	31
SCHEDULE OF CLASSES .....	67
INDEX .....	77

(v)

667922



# CALENDAR OF THE SUMMER SESSIONS \*

1950

Date	Day	Occasion
May 8 .....	Monday .....	Preregistration of students registered in the winter term
June 5 .....	Monday .....	Registration of new students for the first session and the fifteen-week term
June 6 .....	Tuesday .....	First session and fifteen-week term classes begin
July 4 .....	Tuesday .....	Independence Day. Holiday
July 31 .....	Monday .....	First summer session ends
Aug. 1 .....	Tuesday .....	Registration for the second session of the summer term
Aug. 2 .....	Wednesday .....	Classes begin
Aug. 7 .....	Monday .....	Last day for applications for degrees to be conferred in November
Aug. 26 .....	Saturday .....	Foreign-language examinations for the candidates for Master's degrees
Aug. 28 .....	Monday .....	Last day for receiving theses for the Master's degrees and for the professional degrees in Engineering to be conferred in November
Sept. 4 .....	Monday .....	Labor Day. Holiday
Sept. 15 .....	Friday .....	Fifteen-week term ends
Sept. 22 .....	Friday .....	Second summer session ends
Sept. 27-29 ..	Wednesday through Friday .....	Registration for the fall term of the academic year 1950-51

\* The calendar for the Law School is as follows: first session, June 5-August 1; second session, August 2-September 26; Sixteen-Week term, June 5-September 26.  
 The calendar for the special sessions of the School of Education is as follows: Presession, June 12-30; Special Six-Week Session, July 3-August 11; Postsession, August 14-September 1; Special Session—Elementary Education, June 5-September 1. Registration for each of these sessions is held on the first day of classes.



## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President and the President of the University ex officio and the following persons:

John H. Flower, LL.D., *Chairman*

John H. Flower, A.B., *Secretary*

William H. Flower, A.B., LL.B., *Assistant Secretary*

John H. Flower

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

## THE UNIVERSITY

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.

John H. Flower, LL.D., LL.M., LL.B.







## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President and Vice-President of the University ex officio and the following persons by election:

Robert Vedder Fleming, LL.D., *Chairman*

Henry Parsons Erwin, A.B., *Secretary*

Newell Windom Ellison, A.B., LL.B., *Assistant Secretary*

---

Clarence Aiken Aspinwall

Lyman James Briggs, Ph.D., Sc.D., D.Eng., LL.D.

John St. Clair Brookes, Jr., A.M., LL.B.

Homer Cummings, Ph.B., LL.B., LL.D., L.H.D.

\*Watson Davis, B.S. in C.E., C.E.

Mrs. Joshua Evans, Jr., A.B., Ed.D.

\*Robert Elliott Freer, A.B., LL.M.

Charles Carroll Glover, Jr., A.M., LL.B.

Gilbert Grosvenor, A.M., LL.D., Litt.D.

\*Brooks Hays, A.B., LL.B., LL.D.

John Edgar Hoover, LL.M., LL.D.

\*Frank Atherton Howard, B.S. in M.E., LL.B.

Alfred Henry Lawson, LL.B.

Benjamin Mosby McKelway

\*Claude Worthington Owen, LL.M.

Mrs. Henry Alvah Strong, LL.D.

Walter Rupert Tuckerman, A.B., LL.B.

Alexander Wetmore, Ph.D. Sc.D.

\*Charles Stanley White, M.D., Sc.D.

Lloyd Bennett Wilson

---

\* Nominated by the Alumni.



## OFFICERS OF ADMINISTRATION

### THE UNIVERSITY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
 Ulysses S. Grant, 3d, B.S., *Graduate United States Engineers School,*  
*Vice-President*  
 Harold Griffith Sutton, M.S., *Director of Admissions*  
 Fred Everett Nessell, A.B., *Registrar; Secretary of the Faculties*  
 John Russell Mason, B.S. in L.S., A.M., *Librarian; Curator of Art*  
 Myrna Pauline Sedgwick, A.B., *Administrative Secretary*  
 Henry William Herzog, B.S., *Comptroller*  
 Donald David Blanchard, B.C.E., *Business Manager*  
 Claud Max Farrington, A.M., *Director of Activities for Men*  
 Virginia Randolph Kirkbride, A.M., *Director of Activities for Women*  
 Alan Thomas Deibert, A.M., *Adviser to Students from Foreign Countries*  
 Mitchell Dreese, Ph.D., *Dean of the Summer Sessions*  
 Daniel LeRay Borden, A.M., M.D., *Director of Health Administration*  
 Lester Allan Smith, A.M., *Director of Alumni Relations*  
 John Rust Busick, A.B., *Director of Public Relations*  
 Don Carlos Faith, A.M., *Director of Veterans Education*  
 Benjamin Douglass Van Evera, Ph.D., *Coordinator of Scientific Activities*  
 Burnice Herman Jarman, A.M., Ed.D., *Special Assistant to the President*

### THE COLLEGES, SCHOOLS, AND DIVISIONS

Myron Law Koenig, Ph.D., *Dean of the Junior College*  
 Henry Grattan Doyle, A.M., LL.D., Litt.D., *Dean of Columbian College*  
 Robert Whitney Bolwell, Ph.D., *Chairman of the Graduate Council*  
 Walter Andrew Bloedorn, A.M., M.D., Sc.D., *Dean of the School of*  
*Medicine*  
 Oswald Symister Colclough, B.S., LL.B., LL.D., *Dean of the Law School*  
 Frederick Morris Feiker, B.S. in E.E., D.Eng., *Dean of the School of*  
*Engineering*  
 Charles Watson Bliven, M.S., *Dean of the School of Pharmacy*  
 James Harold Fox, A.M., Ed.D., *Dean of the School of Education*  
 Arthur Edward Burns, Ph.D., *Dean of the School of Government*  
 Elmer Louis Kayser, Ph.D., LL.D., *Dean of the Division of University*  
*Students; University Marshal*  
 Warren Reed West, Ph.D., *Dean of the Division of Special Students*  
 William Lewis Turner, A.M., *Assistant Dean of the Junior College*



Katharine Rogers Adams, Ph.D., *Assistant Dean in the Junior College*  
 George Martin Koehl, A.M., *Assistant Dean in the Junior College*  
 Carr Bartleson Lavell, A.M., *Assistant Dean in the Junior College*  
 Calvin Darlington Linton, Ph.D., *Assistant Dean of Columbian College*  
 Carl Hugo Walther, B.E., M.C.E., *Assistant Dean of the School of Engineering*

The idea of a university in the District of Columbia was suggested by George Washington, who during his public life urged the establishment of such an institution and who in his will left shares of stock in the Potomac (Canal) Company for the endowment of a university to be established in the District of Columbia "to which the youth of the time and talents from all parts thereof might be sent for the completion of their Education in all the branches of polite literature, in arts and sciences—in acquiring knowledge in the principles of Politics & good Government."

Columbian College in the District of Columbia was chartered by an act of Congress of February 9, 1821. In 1873 the name was changed to "Columbian University," and in 1901 to "The George Washington University."

The George Washington University includes twelve colleges, schools, and divisions as follows:

The Junior College offers the work of the first two years of the four-year college program in the liberal arts and sciences; two years of professional work; and two-year terminal courses. Each of these curricula leads to the degree of Associate in Arts.

Columbian College offers the work of the junior and senior years of the four-year college program in the liberal arts and sciences leading to the degrees of Bachelor of Arts and Bachelor of Science. It also offers the studies leading to the degrees of Master of Arts and Master of Science in the fields of the liberal arts and sciences.

The Graduate Council offers a program of advanced study and research leading to the degree of Doctor of Philosophy.

The School of Medicine offers work leading to the degree of Doctor of Medicine.

The Law School offers professional and graduate courses leading to the degrees of Bachelor of Laws, Juris Doctor, Master of Laws, Master of Comparative Law, and Doctor of Juridical Science.

The School of Engineering offers courses leading to the degree of Bachelor of Civil Engineering, Bachelor of Electrical Engineering, Bachelor of Mechanical Engineering, and Bachelor of Science in Engineering. It also offers work leading to the professional degrees in the fields of civil, electrical, and mechanical engineering.

The School of Pharmacy offers courses leading to the degree of Bachelor of Science in Pharmacy and Master of Science in Pharmacy.



## THE UNIVERSITY

### HISTORY AND ORGANIZATION

The idea of a university in the Capital of the Nation was sponsored by George Washington, who during his public life urged the establishment of such an institution and who in his will left fifty shares of stock in the Potomac (Canal) Company for the endowment of a university to be established in the District of Columbia "to which the youth of fortune and talents from all parts thereof might be sent for the completion of their Education in all the branches of polite literature;—in arts and Sciences,—in acquiring knowledge in the principles of Politics & good Government".

Columbian College in the District of Columbia was chartered by an act of Congress of February 9, 1821. In 1873 the name was changed to "Columbian University" and in 1904 to "The George Washington University".

The George Washington University includes twelve colleges, schools, and divisions, as follows:

The Junior College offers the work of the first two years of the four-year college program in the liberal arts and sciences; two years of pre-professional work; and two-year terminal courses. Each of these curricula leads to the degree of Associate in Arts.

Columbian College offers the work of the junior and senior years of the four-year college program in the liberal arts and sciences leading to the degrees of Bachelor of Arts and Bachelor of Science. It also offers the studies leading to the degrees of Master of Arts and Master of Science in the fields of the liberal arts and sciences.

The Graduate Council offers a program of advanced study and research leading to the degree of Doctor of Philosophy.

The School of Medicine offers work leading to the degree of Doctor of Medicine.

The Law School offers professional and graduate courses leading to the degrees of Bachelor of Laws, Juris Doctor, Master of Laws, Master of Comparative Law, and Doctor of Juridical Science.

The School of Engineering offers courses leading to the degrees of Bachelor of Civil Engineering, Bachelor of Electrical Engineering, Bachelor of Mechanical Engineering, and Bachelor of Science in Engineering. It also directs work leading to the professional degrees in the fields of civil, electrical, and mechanical engineering.

The School of Pharmacy offers courses leading to the degrees of Bachelor of Science in Pharmacy and Master of Science in Pharmacy.



The School of Education offers undergraduate programs leading to the degrees of Bachelor of Arts in Education, Bachelor of Science in Home Economics, and Bachelor of Science in Physical Education, and graduate studies leading to the degrees of Master of Arts in Education and Doctor of Education.

The School of Government offers undergraduate programs of study in Foreign Affairs, Accounting, Business Administration, and Statistics, leading to the degree of Bachelor of Arts in Government. Graduate work leading to the degree of Master of Arts in Government is offered in these fields and also in Government and Economic Policy, Public Administration, Personnel Administration, and Vocational Counseling.

The Division of University Students makes available courses for mature students, not candidates for degrees in this University.

The Division of Special Students makes available courses for students in the process of qualifying for degree candidacy.

The Summer Sessions.

#### ACADEMIC STATUS

The George Washington University is on the final approved list of the Association of American Universities. This fact not only assures to students the academic standards of this association, but also is important to those who desire to transfer credits from one institution to another.

The University is also accredited by its regional accrediting agency, the Middle States Association of Colleges and Secondary Schools, and is on the approved list of the American Association of University Women.

The Law School is a charter member of the Association of American Law Schools and is approved by the Council of Legal Education of the American Bar Association. The School of Medicine is a member of the Association of American Medical Colleges, and is one of the medical colleges which have been designated continuously as "class A" by the American Medical Association. The School of Pharmacy is accredited by the American Council on Pharmaceutical Education and is a member of the American Association of Colleges of Pharmacy. The School of Engineering is on the accredited list of Engineers' Council for Professional Development.

#### LOCATION

The George Washington University is in downtown Washington, four blocks west of the White House and east of the Potomac River with its extensive parkway. Readily accessible to the University are many of the departments of the Government, including the Department of State, the Department of the Treasury, the Department of Justice, the Department



of the Army, the Department of the Navy, the Department of the Interior, the Department of Agriculture, the Department of Commerce, and the Department of Labor, as well as the National Archives, the Capitol, the Library of Congress, the National Academy of Sciences, the Pan American Union, the National Gallery of Art, and the Corcoran Gallery of Art.

#### EDUCATIONAL FACILITIES

Buildings, grounds, and equipment of the University are valued at over \$17,000,000. The buildings of the colleges, schools, and divisions offering Summer Sessions work are in the vicinity of Twenty-first and G Streets, NW.

*The University Library.*—The University Library contains more than 175,000 volumes, and with the exception of the law and medical collections is housed in the Library Building.

Regulations governing the use of the library, the circulation of books, and the use of reserve books and periodicals are available at the service desks of the Library.

#### OTHER LIBRARY FACILITIES IN WASHINGTON

The student has access also to the Library of Congress, the Public Library of the District of Columbia and its branches, the Library of the Pan American Union, the Library of the Bureau of Railway Economics, the Library of the United States Department of Agriculture, the Library of the United States Office of Education, the Army Medical Library, the Library of the Smithsonian Institution, and many other great special collections of the government departments.

#### RESEARCH FACILITIES OF WASHINGTON

The arrangement of the summer schedule of classes permits the full-time student to avail himself of the opportunity to study, at first hand, the working of the Federal Government and so to form a background for intelligent and useful citizenship.

In the departmental libraries of the Federal Government are a multitude of reports made by eminent specialists in all fields of science on the results of study and research in the bureaus, experimental stations, laboratories, museums, and observatories of the Nation.

In addition to the governmental collection the student has access to the research facilities of such scientific and educational groups, whose headquarters are situated in Washington, as the Carnegie Institution, the American Council on Education, the American Council of Learned Societies, the National Academy of Sciences, the National Research Council, the National Education Association, and the National Geographic Society.



# TABLE OF INSTRUCTION IN THE SUMMER SESSIONS

Raymond Abrahamson, Ph.D., *Lecturer in Geography*  
 Lester Adams, Ph.D., *Lecturer in Botany*  
 Allen J., A.M., *Assistant Professor of English*  
 A.M., *Associate Professor of Spanish*  
 M.S., E.E., J.L.B., *Professor of Electrical Engi-*  
*neering*  
 A.M., *Lecturer in Education*  
 Ph.D., *Professorial Lecturer in Physics*  
 A.B., LL.B., S.J.D., *Professor of Law*  
 and Science

## THE SUMMER SESSIONS

1950

Edward Bish, A.M., *Associate Lecturer in Education*  
 A.B., *Lecturer in Business Administration*  
 Ph.D., *Professor of American Literature*  
 LL.B., LL.M., *Assistant Professor of Law*  
 Ph.D., *Professor of Biology*  
 A.M., *Lecturer in English Composition*  
 A.M., Ed.D., *Lecturer in Education*  
 Ph.D., *Professor of Physics*  
 A.B., *Lecturer in Accounting*  
 A.M., *Lecturer in French*  
 A.B., LL.B., *Associate Professor of Law*  
 Ph.D., *Professor of Economics*  
 Ph.D., *Assistant Professor of Psychology*  
 Ph.D., *Assistant Professor of Geography*  
 M.S., *Instructor in Physics*  
 Ph.D., *Assistant Professor of American Literature*  
 A.M., *Associate in German*  
 A.B., LL.B., S.J.D., *Professor of Law*  
 Lecturer in Geology  
 Ph.D., J.D., *Associate Professor of Law*  
 in Ed., *Instructor in Physics*  
 B.S. in M.E., *Professor of Mechanical Engineering*  
 Ph.D., *Lecturer in Psychology*  
 A.B., LL.B., LL.M., S.J.D., *Professor of Law*  
 Ph.D., *Associate Professor of European History*



at the Army, the Department of State, the Department of the Interior, the Department of Agriculture, the Department of Commerce, and the Department of Education. It is also located in the Capitol, the Library of Congress, the National Academy of Sciences, the Pan American Union, the National Archives, and the National Gallery of Art.

THE SUMMER SESSIONS

The summer sessions of the university are held at the George Washington University Hotel, which is located in the heart of the city. The hotel is a modern building with comfortable rooms and excellent service. The summer sessions are held from June to August, and are open to students and faculty alike.

The summer sessions are held in a building which is located in the heart of the city. The building is a modern building with comfortable rooms and excellent service. The summer sessions are held from June to August, and are open to students and faculty alike.

THE SUMMER SESSIONS

1950

The summer sessions of the university are held at the George Washington University Hotel, which is located in the heart of the city. The hotel is a modern building with comfortable rooms and excellent service. The summer sessions are held from June to August, and are open to students and faculty alike.

THE SUMMER SESSIONS

The summer sessions of the university are held at the George Washington University Hotel, which is located in the heart of the city. The hotel is a modern building with comfortable rooms and excellent service. The summer sessions are held from June to August, and are open to students and faculty alike.

The summer sessions of the university are held at the George Washington University Hotel, which is located in the heart of the city. The hotel is a modern building with comfortable rooms and excellent service. The summer sessions are held from June to August, and are open to students and faculty alike.

The summer sessions of the university are held at the George Washington University Hotel, which is located in the heart of the city. The hotel is a modern building with comfortable rooms and excellent service. The summer sessions are held from June to August, and are open to students and faculty alike.



## STAFF OF INSTRUCTION IN THE SUMMER SESSIONS

- Sherman Raymond Abrahamson, Ph.D., *Lecturer in Geography*  
 Caroline Lander Adams, Ph.D., *Lecturer in Botany*  
 John Gage Allee, Jr., A.M., *Assistant Professor of English*  
 Antonio Alonso, A.M., *Associate Professor of Spanish*  
 Norman Bruce Ames, M.S., E.E., LL.B., *Professor of Electrical Engineering*  
 Roberta Shewmaker Barnes, A.M., *Lecturer in Education*  
 James Gwavas Beckerley, Ph.D., *Professorial Lecturer in Physics*  
 Carville Dickinson Benson, A.B., LL.B., S.J.D., *Professor of Law*  
 Ross North Berkes, Ph.D., *Professorial Lecturer in Political Science*  
 Lee Sheward Bielski, A.M., *Instructor in Speech*  
 Charles Edward Bish, A.M., Ed.D., *Professorial Lecturer in Education*  
 Harold Jerome Bobys, A.B., *Lecturer in Business Administration*  
 Robert Whitney Bolwell, Ph.D., *Professor of American Literature*  
 Lewis Edward Boroughs, LL.B., LL.M., *Assistant Professor of Law*  
 Paul William Bowman, Ph.D., *Professor of Biology*  
 Carlton Ernest Brett, A.M., *Instructor in English Composition*  
 John Frederick Brougher, A.M., Ed.D., *Lecturer in Education*  
 Thomas Benjamin Brown, Ph.D., *Professor of Physics*  
 James Leonard Buckler, A.B., *Lecturer on Accounting*  
 Jaqueline Chevallaz Buhrman, A.M., *Instructor in French*  
 John Patrick Burke, A.B., LL.B., *Associate Professor of Law*  
 Arthur Edward Burns, Ph.D., *Professor of Economics*  
 Willard Edmund Caldwell, Ph.D., *Assistant Professor of Psychology*  
 Robert Dale Campbell, Ph.D., *Associate Professor of Geography*  
 Arthur Castner Christman, Jr., M.S., *Instructor in Physics*  
 James Harold Coberly, Ph.D., *Assistant Professor of American Literature*  
 Nicholas Trephon Cokenias, A.M., *Associate in German*  
 Charles Sager Collier, A.B., LL.B., S.J.D., *Professor of Law*  
 Robert Carter Cook, *Lecturer on Genetics*  
 Robert McKinney Cooper, Ph.M., J.D., *Associate Professor of Law*  
 Jean McQuiston Coover, A.M. in Ed., *Instructor in Physics*  
 Benjamin Carpenter Cruickshanks, B.S. in M.E., *Professor of Mechanical Engineering*  
 Edwin Wallace Davis, Ph.D., *Lecturer in Psychology*  
 James Forrester Davison, A.B., LL.B., LL.M., S.J.D., *Professor of Law*  
 Roderic Hollett Davison, Ph.D., *Associate Professor of European History*



Herman Israel Orentlicher, A.B., LL.B., *Associate Professor of Law*  
 Theodore Peter Perros, M.S., *Instructor in Chemistry*  
 Calvin Weir Pettit, Ph.M., *Assistant Professor of Speech*  
 Ewing Lakin Phillips, Ph.D., *Assistant Professor of Psychology*  
 Merle Irving Protzman, Ph.D., *Professor of Romance Languages*  
 Jean Alfred Pulver, L.-ès-L., *Associate in French*  
 G. Kenneth Reiblich, Ph.D., J.D., LL.M., *Visiting Professor of Law*  
 Russell Ronald Reno, A.B., LL.B., LL.M., *Visiting Professor of Law*  
 Floyd Millard Riddick, Ph.D., *Lecturer in Political Science*  
 Thomas Edmond Robinson, A.M., Ed.D., *Professorial Lecturer in Education*

Gretchen Louisa Rogers, Ph.D., *Associate Professor of German*  
 Blake Smith Root, A.M., Ed.D., *Associate Professor of Education*  
 Mary Carman Rose, A.M., *Instructor in Philosophy*  
 Ralph Windsor Ruffner, A.M., Ed.D., *Associate Professor of Education*  
 William Frederick Sager, Ph.D., *Assistant Professor of Chemistry*  
 Edward Henry Sehrt, Ph.D., *Professor of German*  
 Ernest Sewall Shepard, A.M., *Professor of English Literature*  
 Waldo Edward Smith, B.E., M.S. in C.E., *Professorial Lecturer in Civil Engineering*

Ira Ernest Steele, B.B.A., A.M., *Lecturer on Accounting*  
 Edward Stephens, B.S., LL.B., LL.M., *Professorial Lecturer in Business Administration*

Edwin Lockwood Stevens, A.M., *Assistant Professor of Speech*  
 Jonathan Dayton Stoddart, A.M., *Instructor in Political Science*  
 George Winchester Stone, Jr., Ph.D., *Professor of English Literature*  
 John Sentman Strahorn, A.B., LL.B., S.J.D., *Visiting Professor of Law*  
 Rafael Supervía, Doctor en Derecho, *Assistant Professor of Spanish*  
 Charles Wilson Taintor II, A.B., LL.B., LL.M., S.J.D., *Visiting Professor of Law*

James Henry Taylor, Ph.D., *Professor of Mathematics*  
 John Albert Tillema, Ph.D., LL.M., S.J.D., *Professor of Political Science*

William George Torpey, Ph.D., *Lecturer on Public Administration*  
 Lester Wendell Trueblood, A.M., *Lecturer in Geography*  
 Curtis Edward Tuthill, Ph.D., *Associate Professor of Psychology*  
 Elizabeth June Uelsmann, A.M., *Instructor in Spanish*  
 Benjamin Douglass Van Evera, Ph.D., *Professor of Chemistry*  
 Alberto Vázquez, Ph.D., *Lecturer on Spanish American Literature*  
 Alice Sylvia Venezky, Ph.D., *Instructor in English Composition*  
 Robert Corbin Vincent, Ph.D., *Associate Professor of Chemistry*  
 Donald Stevenson Watson, Ph.D., *Professor of Economics*  
 David Benson Weaver, A.B., LL.B., *Assistant Professor of Law*  
 Frank Mark Weida, Ph.D., *Professor of Statistics*



Warren Reed West, Ph.D., *Professor of Political Science*  
 Thomas Arthur Wiggins, M.S., *Instructor in Physics*  
 Alva Curtis Wilgus, Ph.D., *Professor of Latin American History*  
 Earl Larkin Williams, A.M., *Lecturer in Mathematics*  
 Edith Louise Williams, A.M., *Instructor in English Composition*  
 Harold Maurice Wilson, A.M., *Lecturer in Education*  
 Juanita May Winn, A.M., *Lecturer in Education*  
 Reuben Esselstyn Wood, Ph.D., *Assistant Professor of Chemistry*  
 Samuel Nathaniel Wrenn, Ph.D., *Professor of Chemistry*  
 Kennett William Yeager, Ph.D., *Assistant Professor of Sociology*  
 Lawson Edwin Yocum, Ph.D., *Professor of Botany*  
 Kenneth H. York, A.B., LL.B., *Professorial Lecturer in Law*  
 Donnell Brooks Young, Ph.D., *Professor of Zoology*



due with the tuition fee for the course. Breakage of apparatus is charged against the individual student. When breakage is in excess of the normal amount provided for in the laboratory fee, the individual student will be required to pay such additional charges as are determined by the department concerned.

**GRADUATION FEES**

Wherein the degree of Associate in Arts is granted.....	10.00
Wherein a degree other than the Associate in Arts degree is granted.....	20.00

FEE FOR BINDING MASTER'S THESES.....	4.00
--------------------------------------	------

**SPECIAL FEES**

Application fee, charged all new applicants for admission, non-refundable .....	3.00
Aptitude test fee.....	1.00
Late-registration fee, for failure to register within the designated period.....	5.00
Service fee, for late payment of tuition (see "Payment of Fees")...	1.00
Reinstatement fee, for reinstatement after suspension for delinquency in fees .....	5.00
For each examination to qualify for advanced standing, and for each special examination .....	5.00
Laboratory checkout fee, charged all students in chemistry and pharmacy courses who fail to check out of the laboratory by the time set by the instructor.....	2.00
Withdrawal fee, charged each student who preregisters and withdraws prior to the day of regular registration.....	5.00

Registration in the University entitles each student to the following University privileges: (1) the issuance of three certified transcripts of record, if and when desired; (2) the use of the University library facilities, except as otherwise designated; (3) medical and hospital services described below. These privileges, with the exception of the issuance of transcripts, cease when the student withdraws or is dismissed from the University.

*Medical and Hospital Services.*—These services include: (1) three visits by the University physician or surgeon, office or residence (District of Columbia) in any one illness, exclusive of a specialist, surgical operation, laboratory, or X-ray examinations; (2) hospitalization, including board, and nursing in the University Hospital for not more than one week during any twelve-month period—the necessity to be determined by the Director of Health Administration. The duration of hospitalization period (maximum, one week) is also to be determined by the Director of Health Administration.

The student is allowed, if he so desires, to engage physicians and nurses of his own choice, but when he does so he will be responsible for the fees charged.

This medical benefit does not apply to illness or disability incurred previous to the University term or prior to payment of tuition fees.



#### PAYMENT OF FEES

All fees are payable at the Office of the Cashier, 725 Twenty-first Street NW. No student is permitted to complete registration or to attend classes until all fees are paid. Fees for each session are due in advance at the time of preregistration in the case of former students; at the time of registration in the case of new students.

An auditor pays all fees chargeable to the student registered for credit except the late-registration fee.

#### WITHDRAWALS AND REFUNDS

Registrations, except for courses which extend throughout one unbroken term of fifteen or sixteen weeks, are for the session, and no refunds or rebates are allowed, unless the registration is in advance and the course is dropped before the day of registration for the session involved.

A student who preregisters and withdraws prior to the date of regular registration will be charged a withdrawal fee of \$5.

If notice of withdrawal or change in schedule involving courses which extend over an unbroken term of fifteen or sixteen weeks is received by the dean of the college, school, or division concerned on or before July 31 one-half of the fees will be cancelled. Notice to an instructor is not acceptable notice.

In no case will any part of the initial payment of tuition be refunded because of nonattendance upon classes.

Payments apply only to the session or term for which registration charges are incurred and in no case will these payments be credited to another session or term.

Any student in chemistry who fails to check out of the laboratory on or before the date set by the instructor, unless excused by the instructor, will be charged a laboratory check-out fee of \$2. A student dropping a course before the end of the session or term must check out of the laboratory at the next scheduled laboratory period.

No permission to withdraw and no certificate for work done will be given a student who has not a clear financial record.

#### UNIVERSITY REGULATIONS

*Students in the Summer Sessions are subject to, and are expected to familiarize themselves with, the University regulations as stated in the general catalogue.*

*Academic Credit.*—The Summer Sessions are an integral part of the University. Academic credit for completed work will be given toward the appropriate degrees in the various colleges and schools of the University in accordance with their separate regulations and requirements.



*Residence.*—Summer Sessions work may be counted in residence but the candidate for a degree must satisfy the residence requirements of the school or college concerned as stated in the general catalogue.

*Amount of Work.*—No full-time student may take more than nine credit hours of work during either session; no employed student, more than six hours. By carrying work in both sessions, a full-time student may earn as much as eighteen credit hours; an employed student, twelve hours.

The right is reserved to drop any student whenever, in the interest of the student or the University, the Faculty deems it advisable to do so.

The University is not responsible for the loss of personal property belonging to a student.

The University and its various colleges, schools, and divisions reserve the right to modify or change the requirements, rules, and fees of the University. Such regulations shall go into force whenever the proper authorities may determine and shall apply to every student of the University.

Detailed information concerning admission; scholarship requirements of the individual colleges, schools, and divisions; and requirements for degrees may be obtained from the general catalogue, which is available on request at the Office of the Director of Admissions.

#### STUDENT LIFE

##### SOCIAL AND RECREATIONAL PROGRAM OF THE UNIVERSITY

Provision is made for the social and recreational side of student life during the Summer Sessions. The Annual Summer Sessions Party opens the season and is followed by Friday Evening Starlight Dances on the Lisner Terrace. Teas are arranged so that new students will have a chance to become acquainted with their fellow students.

The city of Washington affords a variety of recreational opportunities. Wooded trails for hiking, riding, and picnicking wind through Rock Creek Park.

The National Symphony Orchestra presents a series of concerts at the Potomac Watergate nearby.

##### LIVING ACCOMMODATIONS

*Women Students.*—Women students under twenty-one years of age who are enrolled for six or more credit hours a session of academic work in the University must have their residences approved by the Director of Activities for Women before their registrations can be completed. In the Hattie M. Strong Residence Hall for Women, single



rooms are \$35 a month; double rooms are \$28 a month a person. Applications for rooms should be made well in advance. Meals are served at the Student Union. Forms for application, together with detailed information, may be obtained from the Director of Activities for Women, in Columbian House.

*Men Students.*—Welling Hall provides double room facilities for 102 students. Rooms rent for \$24 a month a person. Single and double rooms are provided for 203 students in Draper and Bradley Halls. These are temporary dormitories and residence is restricted to veterans of World War II who are enrolled for a minimum of six credit hours of academic work in the University during a single session of the summer term. Single rooms are \$17 a month; double rooms are \$13 a month a person. The University maintains a limited number of temporary apartment units for married veteran students and their families, subject to the same requirements for tenancy as above. Meals are served at the Student Union. Application forms for room reservation may be obtained from the Director of Activities for Men, Building R, 2027 H Street NW.

Information concerning private rooming and boarding facilities near the University, for women students twenty-one years of age or older and for men students, may be obtained at the offices of the Director of Activities for Women and the Director of Activities for Men, respectively. The reservation of rooms in private houses must be made by students.

#### VETERANS EDUCATION

Veterans who wish advice concerning the educational program of the University or the procedure for securing the educational benefits of the GI Bill should consult the Veterans Office, Building Q.

#### AUTHORIZATION FROM THE VETERANS ADMINISTRATION

At least thirty days prior to registration the veteran should obtain from the Regional Office of the Veterans Administration, 1825 H Street NW., a Certificate of Entitlement or, if entitled to vocational rehabilitation, a letter approving training under Public Law 16 for presentation to the Veterans Office of the University at the time of registration. A photostatic copy of separation papers must accompany the application for certification. Veterans who have attended another institution under the GI Bill must obtain a Supplemental Certificate of Eligibility to present to this University.



Veterans already enrolled in the University are requested to consult the Office of Veterans Education prior to making any changes in their academic programs, because of changes in Veterans Administration regulations concerning Supplemental Certification.

#### ADMISSION

For veterans who are deficient in their regular requirements for admission, but who have been found by educational and psychological tests to be able to undertake college work, the University has made certain modifications in the entrance requirements.

*Advanced Standing.*—To receive credit for service schools, veterans should submit to the Director of Admissions photostatic copies of service records indicating courses successfully completed with sufficient identification of the course to enable the Admissions Office to locate it in the Guide to the Evaluation of Educational Experience in the Armed Forces.

#### CONTINUOUS REGISTRATION

By carrying a continuous program throughout the fall, winter, and summer terms, the veteran may complete a four-year college course in three calendar years with no interruption in his subsistence payments.



## THE COLLEGES, SCHOOLS, AND DIVISIONS

Information concerning specific requirements for degrees is contained in the following. For such information, the student is referred to the general catalogue.

### THE JUNIOR COLLEGE

The Junior College includes the first two years of college work. Its purpose is to continue the studies of a general cultural nature begun in secondary school, and to lay a foundation for the more specialized work which is to follow.

The Junior College also provides the preprofessional work required

## THE COLLEGES, SCHOOLS, AND DIVISIONS

for admission to the School of Business and Law. It provides a two-year terminal curriculum in Secretarial Science and a two-year terminal curriculum in Accounting for students who wish specially vocational training in these subjects.

### The Division of Associate in Arts

The Junior College offers work leading to the Degree of Associate in Arts.

### Entrance Requirements

An acceptable certificate of graduation from an approved secondary school is required. The acceptability of the certificate depends upon the student's character and the quality of his work.

### COLUMBIAN COLLEGE

Columbian College, the upper college of liberal arts and sciences, completes the work of the junior and senior years and the Master of Arts and Master of Science divisions.

### The Division

Columbian College offers work leading to the following degrees: Bachelor of Arts, Bachelor of Science, Master of Arts, and Master of Science. In cooperation with the School of Medicine, Columbian College offers work leading to the combined degrees of Bachelor of Arts and Doctor of Medicine.



...the University of Virginia...  
...the University of Virginia...  
...the University of Virginia...

...the University of Virginia...  
...the University of Virginia...  
...the University of Virginia...

## THE COLLEGES, SCHOOLS, AND DIVISIONS

...the University of Virginia...  
...the University of Virginia...  
...the University of Virginia...



## THE COLLEGES, SCHOOLS, AND DIVISIONS

Information concerning specific requirements for degrees is omitted from this bulletin. For such information, the student is referred to the general catalogue.

### THE JUNIOR COLLEGE

The Junior College includes the first two years of college work. Its curricula are intended to continue the studies of a general cultural nature begun in secondary school, and to lay a foundation for the more specialized work which is to follow.

The Junior College also provides the preprofessional work required for admission to the schools of Pharmacy, Education, and Government, and the first two years of the preprofessional work required for admission to the schools of Medicine and Law.

In addition it provides a two-year terminal curriculum in Secretarial Studies and a two-year terminal curriculum in Accounting for students who wish strictly vocational training in these subjects.

### THE DEGREE OF ASSOCIATE IN ARTS

The Junior College offers work leading to the degree of Associate in Arts.

### ENTRANCE REQUIREMENTS

An acceptable certificate of graduation from an accredited secondary school is required. The acceptability of the certificate depends upon the student's character and the quality of his work.

### COLUMBIAN COLLEGE

Columbian College, the senior college of liberal arts and sciences, comprises the work of the junior and senior years and the Master of Arts and Master of Science disciplines.

### THE DEGREES

Columbian College offers work leading to the following degrees: Bachelor of Arts, Bachelor of Science, Master of Arts, and Master of Science. In cooperation with the School of Medicine, Columbian College offers work leading to the combined degrees of Bachelor of Arts and Doctor of Medicine.



## UNDERGRADUATE MAJORS

Curricula leading to the degree of Bachelor of Arts are available in the following major fields:

American Thought and Civilization	Mathematics
Art:	Philosophy
Appreciation	Physics
Drawing and Painting	Political Science
Biology	Psychology
Botany	Religion
Chemistry	Sociology
Economics	Spanish American Literature
English Literature	Spanish Literature
French Literature	Speech:
Geography	Public Speaking
Germanic Languages and Literatures	Theatre
History	Speech Correction
Journalism	Statistics
Latin American Civilization and Culture	Zoology

Curricula leading to the degree of Bachelor of Science are available in the following major fields:

Biology	Physics
Botany	Statistics
Chemistry	Zoology
Mathematics	

## GRADUATE FIELDS

Graduate work leading to the degree of Master of Arts or Master of Science is offered in the following fields:

American Literary and Cultural	History
History	International Relations
Bacteriology	Latin American Civilization and Culture
Biochemistry	Mathematics
Biology	Philosophy
Botany	Physics
Chemistry	Physiology
Dramatic Art	Political Science
Economics	Psychology
English and American Literature	Spanish American Literature
English Literature	Spanish Literature
French Literature	Statistics
Geography	Zoology
Germanic Languages and Literatures	

In addition, programs can be arranged in combined fields subject to the approval of the division or divisions concerned.

## ENTRANCE REQUIREMENTS

For the Bachelor's degrees, the degree of Associate in Arts based on the appropriate curriculum in the Junior College, or the equivalent, is



required. Scholarship requirements may be somewhat higher than those for graduation from the Junior College. For the Master's degrees, an approved Bachelor's degree from an accredited institution and a transcript of studies previously pursued, showing appropriate distribution of courses and a superior quality of work in the major field, are required.

#### THE GRADUATE COUNCIL

The Graduate Council offers work leading only to the degree of Doctor of Philosophy. Because the basis for work under the Graduate Council is primarily creative research, regular study in specific courses is considered quite incidental and is therefore not emphasized in connection with the curricula of the Summer Sessions. A student wishing to work under the disciplines of the Graduate Council will consult the Chairman of the Graduate Council for information concerning credentials and candidacy.

A pamphlet describing details of the Graduate Council program, together with a current list of fields of research offered by the Council, will be sent upon request to the Office of the Graduate Council.

#### THE LAW SCHOOL

The Law School offers work leading to the following degrees: Bachelor of Laws, Juris Doctor, Master of Laws, Master of Comparative Law, and Doctor of Juridical Science.

#### ENTRANCE REQUIREMENTS

*For the Degree of Bachelor of Laws.*—A Bachelor's degree awarded upon completion of a four-year course in an approved college or university is required. All pre-legal work must be of a satisfactory quality and distribution. No student will be admitted who has been in attendance at another law school and who, because of poor scholarship, is on probation or is ineligible to return to that school. From the applicants fulfilling the basic requirement of a college degree, a selection will be made by the Committee on Admissions.

The Juris Doctor degree is conferred as a recognition of completion with high rank of the full professional course, including experience in research and legal authorship. A student does not register as a candidate for this degree until his last year in the Law School.

*For the Degree of Master of Laws.*—A Bachelor's degree awarded upon completion of a four-year course in an approved college or university and the degree of Bachelor of Laws from an approved law school are required.

*For the Degree of Master of Comparative Law.*—The following are required: (1) the successful completion of and graduation from a course



in arts, philosophy, letters or sciences, equivalent to graduation from a gymnasium, lycee, or lyceo (junior college); and (2) graduation in law from a recognized foreign university where training was in civil law.

*For the Degree of Doctor of Juridical Science.*—The following are required: (1) the degree of Juris Doctor from this Law School; or (2) the degree of Bachelor of Arts from an approved college, the degree of Bachelor of Laws or the equivalent, earned with high rank, from an approved law school, outstanding capacity for scholarly work in the field of law, and acceptance as a candidate by the Committee on Graduate Studies of the Law School.

*Unclassified Students.*—A person eligible for admission to regular standing but not a candidate for a degree may, at the discretion of the Dean, be admitted as an unclassified student.

A person who is in good standing as a candidate for a degree in another approved law school may, at the discretion of the Dean, be admitted as an unclassified student. Work taken by an unclassified student will not be accepted for credit toward a degree at this Law School.

## THE SCHOOL OF ENGINEERING

### THE DEGREES

The School of Engineering offers work leading to the following degrees: Bachelor of Civil Engineering, Bachelor of Electrical Engineering, Bachelor of Mechanical Engineering, and Bachelor of Science in Engineering.

### ENTRANCE REQUIREMENTS

An acceptable certificate of graduation from an accredited secondary school, or the satisfactory passing of College Entrance Board examinations in secondary school subjects selected with the approval of the Director of Admissions is required.

Nine and one-half of the fifteen units required for entrance must be distributed as follows: three in English, two in algebra, one in plane geometry, one-half in plane trigonometry, one in physics or chemistry, and two in one foreign language or history. A graduate of an approved high school who does not offer for admission the particular subjects required for the engineering curriculum, but who does present not less than fifteen acceptable units, may be admitted on condition, if such deficiency in the distribution of units does not exceed two units.

## THE SCHOOL OF EDUCATION

The School of Education prepares teachers, supervisors, and administrators for educational service and offers opportunities to teachers of



experience to extend their education. The schedule of courses is arranged to meet the needs of employed students as well as those able to devote full time to their studies. It offers both graduate and undergraduate work.

### THE DEGREES

The School of Education offers work leading to the following degrees: Bachelor of Arts in Education, Bachelor of Science in Home Economics, Bachelor of Science in Physical Education, Master of Arts in Education, and Doctor of Education.

### ENTRANCE REQUIREMENTS

*For the Bachelor's Degrees.*—The satisfactory completion of two years of approved college work, or graduation from an approved two-year normal school, or the equivalent, is required.

*For the Master's Degree.*—A Bachelor's degree from an accredited college, or the equivalent, and the approval of the Committee on Admissions and Advanced Standing are required.

*For the Doctor's Degree.*—A Master's degree from an accredited college, or the equivalent, and the approval of the Faculty of the School of Education are required.

### THE SCHOOL OF GOVERNMENT

#### THE DEGREES

The School of Government offers work leading to the following degrees: Bachelor of Arts in Government with a major in Foreign Affairs, Statistics, Accounting, and Business Administration; and Master of Arts in these fields as well as in Government and Economic Policy, Public Administration, Personnel Administration, and Vocational Counseling.

### ENTRANCE REQUIREMENTS

*For the Bachelor's Degree.*—The satisfactory completion of two years of approved college work is required for admission to study for this degree.

*For the Master's Degree.*—An approved Bachelor's degree based on the proper training for the field selected by the student for graduate study is required.

### FOREIGN SERVICE REVIEW COURSE

The University will again offer a twelve-week non-credit Review Course, June 19 to August 25, in preparation for the written Foreign Service Examination to be given by the Department of State on September 5-8, 1950. To be eligible to take this examination, the applicant



(1) shall be over 21 and under 30 years of age as of July 1, 1950; (2) shall have been a citizen of the United States for at least 10 years; (3) shall not be married to an alien; (4) shall have an adequate knowledge of at least one foreign language.

Enrollment in the Foreign Service Review Course is limited and admission is on a competitive basis. Applicants must have a Bachelor's degree in the field of the social sciences and a superior academic record. Only in exceptional cases is admission granted to college seniors and graduates in other fields.

Application for admission must be received by May 20, 1950.

The cost of this course, including library and medical facilities and other privileges of the University, is \$180, which is the case of veterans is covered by the educational benefits of the GI Bill.

For further information and application forms, write to the Director, Foreign Service Review Course, School of Government.

#### THE DIVISION OF UNIVERSITY STUDENTS

The Division of University Students makes the work of the University, in its several colleges and schools, accessible to students 21 years of age or over who are not working toward a degree in this University.

Candidates for degrees in other colleges and universities attending the Summer Sessions of the University are registered in the Division of University Students.

Adequate preparation to undertake the desired courses is required.

#### THE DIVISION OF SPECIAL STUDENTS

This is a non degree-granting division of the University in which the Director of Admissions may authorize the placement of students in the process of making up entrance deficiencies to degree-granting colleges and schools of the University.

Complete credentials must be submitted and evaluated before a program of studies is approved.



## COURSES OF INSTRUCTION

### EXPLANATION OF COURSE NUMBERS

An odd number preceding the name of the course indicates that the course is offered in the first term; an even number, that it is offered in the second session. The letter "N" following an odd number (e.g., 1N) indicates that the course is normally given in the first session, is given in the second session. The letter "S" following an even number (e.g., 2S) indicates that the course is normally given in the second session, is given in the first session. The letter "S" following the number of a course indicates that the course is given in the first of three weeks.

Four-year co-educational courses numbered from 1 to 100, are planned for the student in the freshman or sophomore year. With the approval of the student and the faculty, they may also be taken by a junior or senior.

## COURSES OF INSTRUCTION

Students may be credited toward a degree with credit.

**Transfer credit.**—Courses numbered from 101 to 200 are planned for the student in the junior or senior year. They may be credited toward higher degrees only when registration for graduate credit has been approved at the beginning of the course by the dean responsible for the graduate work and by the officer of instruction, and when the completion of additional work has been required by the officer of instruction.

**Advanced courses.**—Courses numbered from 201 to 300 are planned primarily for the graduate student. They are open, with the approval of the officer of instruction, to the qualified senior who are not open to the Junior College student.

### INDICATION OF THE AMOUNT OF CREDIT

The number of hours of credit given for the satisfactory completion of a course is in the first column indicated in parentheses after the name of the course.

The University reserves the right to change or withdraw any of the courses of instruction listed.







## COURSES OF INSTRUCTION

### EXPLANATION OF COURSE NUMBERS

*An odd number preceding the name of the course indicates that the course is offered in the first session; an even number, that it is offered in the second session. The letter "x" following an odd number (e.g., 5x) indicates that the course, normally given in the first session, is given in the second session. The letter "x" following an even number (e.g., 6x) indicates that the course, normally given in the second session, is given in the first session. The letter "S" following the number of a course indicates that the course is given in one term of fifteen weeks.*

*First-group courses.*—Courses numbered from 1 to 100, are planned for the student in the freshman or sophomore year. With the approval of the adviser and the dean, they may also be taken by a junior or senior. In certain instances, they may be taken by a graduate student to make up undergraduate deficiencies or as prerequisite to advanced courses, but they may not be credited toward a higher degree.

*Second-group courses.*—Courses numbered from 101 to 200, are planned for the student in the junior or senior year. They may be credited toward higher degrees only when registration for graduate credit has been approved at the beginning of the course by the dean responsible for the graduate work and by the officer of instruction, and when the completion of additional work has been certified by the officer of instruction.

*Third-group courses.*—Courses numbered from 201 to 300, are planned primarily for the graduate student. They are open, with the approval of the officer of instruction, to the qualified senior; they are not open to the Junior College student.

### INDICATION OF THE AMOUNT OF CREDIT

The number of hours of credit given for the satisfactory completion of a course is in most cases indicated in parentheses after the name of the course.

The University reserves the right to change or withdraw any of the courses of instruction listed.



## BIOLOGY \*

## FIRST SESSION

- 1 *Survey in Biology* (3) Bowman  
A review of the plant and animal kingdoms with emphasis upon the interdependence of living things. Material fee, \$4.50. Lecture—Tues. and Thurs., 9:10 A.M.; laboratory—Tues. and Thurs., 10:10 to 12:00 A.M.; field trip—Wed. and Fri., 9:10 to 12:00 A.M.
- 115 *Cytology* (3) Bowman  
Study of plant and animal cells and their components, including the chromosomes and their role in heredity, with training in the preparation of materials for study. Prerequisite: one year of college work in Biology, Botany, or Zoology. Material fee, \$6. Lecture—Mon. and Wed., 2:10 P.M.; laboratory—Mon. and Wed., 3:10 to 5:00 P.M. and Tues. and Thurs., 2:10 to 4:00 P.M.
- 127 *Genetics* (3) Cook  
A lecture course in which the general principles are illustrated with specific examples of inheritance in plants and animals, including man. Prerequisite: one year of college work in Biology, Botany, or Zoology. 6:10 P.M.
- 211 *Research in Cytology* Bowman  
Hours and credits to be arranged.
- 299 *Thesis* (3) Bowman

## SECOND SESSION

- 2 *Survey in Biology* (3) Munson  
A review of the fields of evolution and heredity, public health, and conservation of natural resources. Material fee, \$4.50. Lecture—Tues. and Thurs., 9:10 A.M.; laboratory—Tues. and Thurs., 10:10 to 12:00 A.M.; field trip—Wed. and Fri., 9:10 to 12:00 A.M.

## BOTANY ‡

## FIRST SESSION

- 1 *Structure and Function of the Flowering Plant* § (3) Adams  
The typical plant as a working mechanism, with the emphasis on the general biological significance of plant physiology. Material fee, \$4.50. Lecture—Tues. through Fri., 11:10 A.M.; laboratory—Tues. through Fri., 12:10 to 1:00 P.M.
- 107 *Algae, Fungi, and Mosses* (3) Adams  
Field and laboratory study of the habitat, structure, and identification of representative local forms of algae, fungi, and mosses. Prerequisite: Botany 1 and 2 or Biology 1-2. Lecture—Thurs., 6:10 P.M. and Sat., 9:10 A.M.; laboratory—Thurs. and Sat., as arranged; trip—Sat., 10:10 A.M. to 1:00 P.M.

\* See also the departments of Botany and Zoology.

‡ See also the departments of Biology and Zoology.

§ Botany 1 and 2 are prerequisite to all other courses in Botany.



- 295 *Research* The Staff  
Hours and credits to be arranged.
- 299 *Thesis* (3) The Staff

## SECOND SESSION

- 2 *Survey of the Plant Kingdom*\* (3) Yocum  
Study of the different kinds of plants with emphasis on the evolution of the plant kingdom; practice in identifying flowering plants. Material fee, \$4.50. Lecture—Tues. through Fri., 11:10 A.M.; laboratory—Tues. through Fri., 12:10 to 1:00 P.M.
- 138 *Growth Regulators* (3) Yocum  
Lectures, literature reviews, and laboratory studies of the physiology of growth regulators and their functions in plants and animals. Prerequisite: Botany 1 and 2 or Biology 1-2. Lecture—Thurs., 6:10 to 8:00 P.M. and Sat., 9:10 to 11:00 A.M.; laboratory—Thurs. and Sat., as arranged.
- 296 *Research* The Staff  
Hours and credits to be arranged.
- 300 *Thesis* (3) The Staff

## BUSINESS ADMINISTRATION

## FIRST SESSION

- 51 *Introductory Accounting* (3) Kennedy, Buckler  
Basic principles underlying accounting records used by single proprietorships; preparation of the work sheet and financial statements. Section A: 8:10 A.M.; section B: 6:10 P.M.
- 102x *Business Management* (3) Steele  
The management movement, organization of an enterprise, principles of management and their application to various departments of an enterprise. 6:10 P.M.
- 115 *Business Finance* (3) Steele  
Survey of financial policies involved in new enterprises and study of capital structures, promotion, earnings, surplus, reorganization, and governmental regulation. Prerequisite: Business Administration 51-52. Mon., Tues., and Wed., 7:10 to 8:35 P.M.
- 132x *Business Budgeting* (3) Buckler  
The preparation and utilization of budgets as an aid to management. Prerequisite: Business Administration 51-52. 8:10 A.M.
- 145 *Cost Accounting* (3) Bobys  
Job order and process systems of cost findings, interrelations of the cost records and the general accounts, introduction to standard and distribution costs. Prerequisite: Business Administration 51-52. 11:10 A.M.

\* Botany 1 and 2 are prerequisite to all other courses in Botany.



- 151 *Intermediate Accounting* (3) Bobys, Lewis  
Problems relating to the recording of assets and liabilities; treatment of depreciation, depletion, amortization, funds, and reserves is stressed. Prerequisite: Business Administration 52. Section A: 9:10 A.M.; section B: 6:10 P.M.
- 153 *Advanced Accounting* (3) Lewis  
Study of consolidated statements, statement of affairs, realization and liquidation reports, and estate and trust accounting. Prerequisite: Business Administration 151-52. Mon., Tues., and Wed., 7:10 to 8:35 P.M.
- 155 *Analysis of Financial Statements* (3) Kennedy  
Technique of analyzing financial statements for the guidance of operating executives, directors, stockholders, and creditors; valuation of income statement and balance sheet items; determination and interpretation of ratios. Prerequisite: Business Administration 51-52. 10:10 A.M.
- 157 *Federal Taxation* (3) Stephens  
Study of the accounting and reporting requirements of federal taxation, with emphasis upon income and social security taxes; business management problems presented by these taxes will also be considered. Prerequisite: Business Administration 51-52. 7:10 A.M.
- 169 *Advertising* (3) Johnson  
Advertising as a function of marketing and merchandising; evaluation, purchase, criticism, and control of advertising; uses and limitations of advertising as a tool of management. 8:10 A.M.
- 171 *Principles of Marketing* (3) Johnson  
A survey of marketing, giving particular attention to consumption retailing, wholesaling, and sales management; the entire marketing structure and its relation to the total economy. 7:10 A.M.
- 215 *Corporation Financial Problems* (3) Kennedy  
Financial practice in promotion, consolidations and mergers, capital structure adjustments, and reorganization. Mon. and Tues., 6:10 to 8:30 P.M.
- 299 *Thesis* (3) The Staff

## SECOND SESSION

- 51X *Introductory Accounting* (3) Kurtz  
Basic principles underlying accounting records used by single proprietorships; preparation of the work sheet and financial statements. Mon., Tues., and Wed., 7:10 to 8:35 P.M.
- 52 *Introductory Accounting* (3) Jones, Buckler  
Study of basic principles underlying accounting records used by partnerships and corporations; introduction to cost accounting and valuation and income determination problems. Prerequisite: Business Administration 51. Section A: 8:10 A.M.; section B: 6:10 P.M.



- 112 *Personnel Management in Industry* (3) \_\_\_\_\_  
Survey of labor policies and methods of business enterprises. 7:10 A.M.
- 136 *Business Problems* (3) Jessup  
Principles and methods of management illustrated by cases drawn from business and industry. 9:10 A.M.
- 152 *Intermediate Accounting* (3) Kurtz  
Accounting for the organization, financing, operation, and dissolution of partnerships and corporations. Prerequisite: Business Administration 151. Section A: 9:10 A.M.; section B: 6:10 P.M.
- 165x *Auditing* (3) Jones  
Duties and responsibilities of the auditor, principles and procedures in making audits, arrangement of working papers and the preparation of audit working papers and reports. Prerequisite: Business Administration 151-52 or permission of instructor. 7:10 P.M.
- 168 *Sales Management* (3) Jessup  
Organization of the sales department, sales planning and forecasting, quotas, territories, performance standards, and analysis and control of distribution costs. Prerequisite: Business Administration 171. 8:10 A.M.
- 199x *Controllership* (3) Jessup  
The duties, responsibilities, and place of the controller in a business organization; relations of controller to other departments and regulatory bodies; and the controller's relation to inventories, depreciation policies, internal auditing, expense control and budgeting, and financial reports to management, stockholders, and employees. Prerequisite: Business Administration 51-52. Mon., Tues., and Wed., 7:10 to 8:35 P.M.
- 291x *Seminar in Business Administration* (3) Kelso  
Mon. and Tues., 6:10 to 8:30 P.M.
- 300 *Thesis* (3) The Staff

## CHEMISTRY

## FIRST SESSION

- †11 *General Chemistry* (4) Van Evera, Naeser,  
Harkness, Perros  
This course is the first half of a full course. The second half, Chemistry 12, must be completed before credit is allowed. Laboratory fee, \$12. Lecture—Tues. through Fri., 10:10 A.M. Laboratory—section K: Tues. through Fri., 8:10 to 10:00 A.M.; section M: Tues. through Fri., 1:10 to 3:00 P.M. Recitation—section K: Tues. and Thurs., 11:10 A.M.; section M: Tues. and Thurs., 3:10 P.M. A student registers for the lecture, and for laboratory and recitation sections of the same letter designation.

† A dagger preceding an odd-numbered course indicates that it is the first half of a full-year course, the second half of which must be completed before credit is allowed.



- 21 *Qualitative Inorganic Analysis* Vincent, Van Evera,  
(4) Perros  
Theoretical and practical study of methods of separating and identifying the more common cations and anions using semi-micro techniques. Prerequisite: Chemistry 12. Laboratory fee, \$12. Lecture—Tues. through Fri., 1:10 P.M. Laboratory—section K: Tues. through Fri., 9:10 to 12:00 A.M.; section M: Tues. through Fri., 2:10 to 5:00 P.M.
- 135 *Inorganic Chemistry: Preparations* (2) Naeser  
Application of the technique of inorganic chemistry to the preparation and purification of a list of selected substances. Prerequisite: Chemistry 152. Prerequisite or concurrent registration, Chemistry 111-12. Laboratory fee, \$14. Morning and afternoon sections, hours to be arranged.
- 136x *Inorganic Chemistry: Preparations* (2) Naeser  
Application of the technique of inorganic chemistry to the preparation and purification of compounds of the less common elements obtained from both minerals and commercial sources. Prerequisite: Chemistry 135. Laboratory fee, \$14. Morning and afternoon sections, hours to be arranged.
- †151 *Organic Chemistry* (4) Mackall  
Chemistry of the carbon compounds. Semi-micro and macro techniques are employed in the laboratory. Prerequisite: Chemistry 12 and 21. This course is the first half of a full course. The second half, Chemistry 152, must be completed before credit is allowed. Lecture (3), Laboratory (1). Laboratory fee, \$6. Lecture—Mon., Wed., and Fri., 9:10 and 11:10 A.M. Laboratory—section K: Tues. and Thurs., 9:10 to 12:00 A.M.; section M: Tues. and Thurs., 2:10 to 5:00 P.M.
- 295 *Research* The Staff  
Research on problems approved by the staff. Open to qualified students with advanced training. Laboratory fee, \$6 a credit hour. Hours and credits to be arranged.
- 299 *Thesis* (3) The Staff  
Hours to be arranged. Laboratory fee, \$15.

## SECOND SESSION

- 12 *General Chemistry* (4) Wood, Haight  
Prerequisite: Chemistry 11. Laboratory fee, \$12. Lecture—Tues. through Fri., 10:10 A.M. Laboratory—section K: Tues. through Fri., 8:10 to 10:00 A.M.; section M: Tues. through Fri., 1:10 to 3:00 P.M. Recitation—section K: Tues. and Thurs., 11:10 A.M.; section M: Tues. and Thurs., 3:10 P.M. A student registers for the lecture, and for the laboratory and recitation sections of the same letter designation.
- 22 *Quantitative Inorganic Analysis* (4) Norton, Wood  
The principles of gravimetric and volumetric analysis. Prerequisite: Chemistry 21 or the equivalent. Laboratory fee, \$15. Lecture—Tues. through Fri., 1:10 P.M. Laboratory—section K: Tues. through Fri., 9:10 to 12:00 A.M.; section M: Tues. through Fri., 2:10 to 5:00 P.M.



- 152 *Organic Chemistry* (4) Wrenn, Sager  
A continuation of Chemistry 151. Prerequisite: Chemistry 151. Lecture (2), laboratory (2). Laboratory fee, \$12. Lecture—Tues. through Fri., 1:10 P.M. Laboratory—section K: Tues. through Fri., 9:10 to 12:00 A.M.; section M: Tues. through Fri., 2:10 to 5:00 P.M.

- 155x *Organic Chemistry: Preparations* (2 or 3) Wrenn  
The synthesis of organic compounds and the application of the technique of organic chemistry to the preparation of pure compounds, using larger amounts and greater refinements than in Chemistry 151-52. Laboratory fee, \$8 a credit hour. Morning and afternoon sections, hours to be arranged.

- 296 *Research* The Staff  
Continuation of Chemistry 295. Laboratory fee, \$6 a credit hour. Hours and credits to be arranged.

- 300 *Thesis* (3) The Staff  
Hours to be arranged. Material fee, \$15.

## CIVIL ENGINEERING

## FIRST SESSION

- 21 *Analytical Mechanics: Statics* (2) Miklofsky  
Composition and resolution of forces, axial stresses, centroids, friction. Prerequisite: Physics 6; prerequisite or concurrent registration: Mathematics 20. Tues. and Thurs., 6:10 to 8:00 P.M.

## SECOND SESSION

- 22 *Analytical Mechanics: Dynamics* (3) Greenshields  
Kinematics of a particle; kinetics of a body in translation, rotation, and plane motion; work and energy; impulse and momentum; simple vibrations. Prerequisite: Civil Engineering 21. Mon., Wed., and Fri., 6:10 to 8:00 P.M.

## FIFTEEN-WEEK TERM

- 123S *Strength of Materials* (3) Miklofsky, Smith  
Tension, compression, shear, flexure, and torsion; deflection; combined and working stresses. Prerequisite: Civil Engineering 22. Mon., Wed., and Fri., 6:10 P.M.

- 136S *Hydraulics* (3) Miklofsky, Smith  
Hydrostatics, flow through pipes and open channels, laminar and turbulent flow. Prerequisite: Civil Engineering 22. Mon., Wed., and Fri., 7:10 P.M.

## ECONOMICS \*

## FIRST SESSION

- 1 *Introductory Economics* \* (3) Burns, \_\_\_\_\_  
Survey of the major economic institutions and economic problems in contemporary society. Section A: 9:10 A.M.; section B: 6:10 P.M.

\* Economics 1-2 is prerequisite to all other courses in economics.



- 101 *Economic Theory* (3) Watson  
Introduction to formal economic theory; advanced analysis of demand, supply, and price relations. 10:10 A.M.
- 102x *History of Economic Thought* (3) \_\_\_\_\_  
Economic doctrines since the mercantilist writers; the history of the major schools of thought; influence of changing problems on theory. 6:10 P.M.
- 144x *Labor Movements* (3) \_\_\_\_\_  
Survey of growth and types of labor unions, development and problems of collective bargaining. 7:10 P.M.
- 166x *Comparative Systems of Economic Reform* (3) Watson  
Critical analysis of the major theories of economic and social reform, with special attention to their origins and backgrounds. 11:10 A.M.
- 181 *International Economics* (3) \_\_\_\_\_  
Survey of world economics; basic factors; resource controls; international trade; industrial, financial, and monetary processes and policies; relation to internal economic systems. 5:10 P.M.
- 205 *Business Cycle Theory* (3) Watson  
The contributions of the pre-Keynesian writers. Mon. and Wed., 6:10 to 8:00 P.M.
- 225 *Economic Stabilization Policies* (3) Burns  
Appraisal of economic policies directed towards the stabilization of the economy, with special attention to the problem of full employment. Tues. and Thurs., 6:10 to 8:00 P.M.

## SECOND SESSION

- 2 *Introductory Economics* \* (3) Miller, \_\_\_\_\_  
Continuation of Economics 1. Section A: 9:10 A.M.; section B: 6:10 P.M.
- 109x *Distribution Theory and Welfare Economics* (3) \_\_\_\_\_  
Advanced economic theory with emphasis on income distribution and the literature on welfare economics. Prerequisite: Economics 101 or the equivalent. 7:10 P.M.
- 121x *Money and Banking* (3) Miller  
Theory of money, credit, and banking; commercial banking and the Federal Reserve System; other financial institutions; international aspects of money; current financial problems. 10:10 A.M.
- 146 *Economic Security and Social Insurance* (3) Hanchett  
Economic and social problems of unemployment and destitution, analysis of the federal social security program, survey of the Beveridge and other plans. 5:10 P.M.

---

\* Economics 1-2 is prerequisite to all other courses in economics.



- 182 *International Economics* (3) Miller  
Continuation of Economics 181. 11:10 A.M.
- 214 *Quantitative Economics* (3) Hanchett  
Introduction to mathematical economic theories. Mon. and Wed.,  
6:10 to 8:00 P.M.
- 260 *Theory of Public Finance* (3) Hanchett  
Survey of the literature on public finance, with special attention to  
controversial issues. Tues. and Thurs., 6:10 to 8:00 P.M.

## EDUCATION

## FIRST SESSION

- 109 *Learning and Teaching* (3) Wilson  
For the general student as well as the prospective teacher. Nature  
of learning and teaching approached through the study of actual class-  
room situations. Mon. through Thurs., 9:10 A.M.; field work—four  
hours to be arranged.
- 121 *School and Society* (3) Jarman  
For the general student as well as the prospective teacher. The local,  
national, and international roles of education; cooperation of the school  
with other community agencies. Mon. through Thurs.; field work—  
four hours to be arranged. Section A: 10:10 A.M.; section B: 6:10 P.M.

## SECOND SESSION

- 110 *Learning and Teaching* (3) Ruffner  
The principles and practices of good teaching. Mon. through Thurs.,  
9:10 A.M.; field work—four hours to be arranged.
- 122 *School and Society* (3) Hall  
Organization and operation of schools; principles and functions. Mon.  
through Thurs.; field work—four hours to be arranged. Section A:  
10:10 A.M.; section B: 6:10 P.M.

## PRE-SESSION

June 12 to 30

- 219 *Elementary Education* (3) Robinson  
Review of recent literature and practices; particular attention to  
*Education for All American Children*, the recent report of the Edu-  
cational Policies Commission. 9:10 to 11:00 A.M.; conference hour—  
11:10 A.M.
- 233 *Audio-visual Education* (3) Johnson  
Selection and use of audio-visual aids; management of materials and  
equipment. Material fee, \$5. Lecture—9:10 to 11:00 A.M.; labora-  
tory—2:10 to 4:00 P.M.; conference hour—11:10 to 12:00 A.M.



- 255 *Secondary Education* (3) Root  
Review of recent literature and practices; particular attention to *Education for All American Youth*, the recent report of the Educational Policies Commission, and *General Education in a Free Society*, the Harvard Committee. 9:10 to 11:00 A.M.; conference hour—11:10 A.M.

## SPECIAL SIX-WEEK SESSION

July 3 to August 11

- 115 *Elementary School Classroom Procedures* Barnes, Winn (3)  
Determination of children's needs and interests, providing for individual differences, evaluation of classroom practices. 8:00 to 9:00 A.M.; conference hour—Mon. and Wed., 10:20 A.M.
- 125 *Corrective Procedures in Reading* (3) Hilder  
Study of levels, needs, materials, and corrective methods. Demonstrations and observations with clinic cases. 9:10 to 10:10 A.M.; conference hour—Tues. and Thurs., 10:20 A.M.
- 218 *Contemporary Problems in Education* (3) Jarman  
A study of the forces that shape the policies and offerings of the school. 8:00 to 9:00 A.M.; conference hour—Tues. and Thurs., 10:10 A.M.
- 231 *Secondary School Classroom Procedures* (3) Bish  
Survey of current classroom practices with particular attention to teaching aids, review of recent literature. 9:10 to 10:10 A.M.; conference hour—Mon. and Wed., 10:20 A.M.
- 254 *The Junior High School* (3) Root  
Purposes, organization, core programs, guidance, developing courses of study. 2:10 to 3:10 P.M.; conference hour—Tues. and Thurs., 3:10 P.M.
- 256 *Secondary Education* (3) Bish  
Current problems in each of the subject-matter fields. 11:30 A.M. to 12:30 P.M.; conference hour—Tues. and Thurs., 10:20 A.M.
- 272 *School Supervision* (3) Fox  
Nature, organization, human relationships, and techniques. 10:20 to 11:20 A.M.; conference hour—Tues. and Thurs., 9:10 A.M.
- 279 *Adult Education* (3) Ruffner  
Nature, extent, and organization of programs in adult education. Tues. and Thurs., 6:40 to 9:00 P.M.; conference hour—Tues. and Thurs., 6:00 P.M.
- 285 *Extra-classroom Activities* (3) Root  
Home-room functions, student self-government, clubs, assemblies, school publications. Mon. and Wed., 6:40 to 9:00 P.M.; conference hour—Mon. and Wed., 6:00 P.M.



- 295 *Educational Research Methods and Procedures* (3) Fox  
Required of all Master's candidates following Plan 2. 1:00 to 2:00 P.M.; conference hour—Mon. and Wed., 2:10 P.M.

- 297 *Reading in Education* (1) The Staff  
To assist those preparing for the comprehensive examination. No credit toward degree requirements. 3:10 P.M.

- Psychology 228 *Seminar: Techniques of Counseling* (3) Dreese  
Specific types of vocational, educational, and personal counseling problems approached through the case method. Prerequisite: recent previous course in counseling and guidance and familiarity with individual analysis methods. 10:20 to 11:25 A.M.

- 299-300 *Thesis* (3-3) The Staff

POST-SESSION

August 14 to September 1

- 209 *Child Growth and Development* (3) Indorf  
Basic factors in human growth and development and their relation to learning and teaching. Related practical experience in studying children with class analyses of procedures and results. 9:10 to 11:00 A.M.; conference hour—11:10 A.M.

- 211 *Evaluation in Education* (3) Ruffner  
Nature, functions, and techniques; application to various types of evaluation problems. 10:10 to 12:00 A.M.; conference hour—2:00 P.M.

- 251 *Guidance in Secondary Schools* (3) Brougher  
Scope; needs; organization of the program; services to students, the instructional staff, and the administration; personnel needed for the program. 9:10 to 11:00 A.M.; conference hour—11:10 A.M.

SPECIAL SESSION—ELEMENTARY EDUCATION

June 5 to September 1

For graduates of liberal arts colleges and graduates of secondary school curricula who wish to prepare for elementary school teaching.

- 107 *Introduction to Learning and Teaching* (2) Indorf  
Child growth and development, nature of learning and teaching, principles of teaching. For liberal arts graduates who have had no equivalent professional training. 9:10 to 11:00 A.M.; conference hour—11:10 A.M.; field work to be arranged. June 5 to June 16.

- 108 *The Elementary School* (3)  
Purposes, organization, program of studies, and general problems of the elementary school. For liberal arts graduates and graduates of secondary school curricula. 2:10 to 4:00 P.M.; conference hour—4:10 P.M.; field work to be arranged. June 19 to July 7.



III-12 *Elementary School Curriculum* (6)

An integrated course dealing with materials and methods; language skills—reading, writing, spelling, speaking, listening; natural and social sciences, arithmetic. May be taken for graduate credit. July 10 to August 4—2:10 to 3:00 P.M.; conference hour—3:10 P.M. August 7 to September 1—9:10 to 11:00 A.M.; conference hour—11:10 A.M.; field work to be arranged.

133-34 *Observation and Practice Teaching* (4)

Indorf

In elementary schools. Hours to be arranged. June 26 to August 4.

## ELECTRICAL ENGINEERING

## FIRST SESSION

9 *Elements of Electrical Engineering* (3)

Lee

Magnetic and electrical circuits; direct-current instruments and machines. Prerequisite: Physics 7; prerequisite or concurrent registration: Mathematics 20. 6:10 to 7:10 P.M.

13 *Electrical Laboratory* (2)

The Staff

For the student not majoring in electrical engineering. Experiments in direct-current circuits, instruments, and machinery. Prerequisite: Electrical Engineering 10. Laboratory fee, \$6. Mon. and Thurs., 8:10 to 11:00 P.M.

105 *Direct-Current Laboratory* (2)

The Staff

For the student majoring in electrical engineering. A course in measurements and direct-current dynamo laboratory. Prerequisite: Electrical Engineering 10. Laboratory fee, \$6. Mon. and Thurs., 8:10 to 11:00 P.M.

133 *Alternating-Current Laboratory* (2)

The Staff

A continuation of Electrical Engineering 105-6, with experiments on Alternating-current circuits, instruments, and machines. Prerequisite: Electrical Engineering 106 and 108. Laboratory fee, \$6. Mon. and Thurs., 8:10 to 11:00 P.M.

## SECOND SESSION

10 *Elements of Electrical Engineering* (3)

Ames

Alternating-current circuits, instruments, and machines. Prerequisite: Electrical Engineering 9. 6:10 to 7:10 P.M.

14 *Electrical Laboratory* (2)

The Staff

A continuation of Electrical Engineering 13 with experiments in alternating-current circuits, instruments, and machinery. Laboratory fee, \$6. Mon. and Thurs., 8:10 to 11:00 P.M.

106 *Direct-Current Laboratory* (2)

The Staff

Continuation of Electrical Engineering 105. Laboratory fee, \$6. Mon. and Thurs., 8:10 to 11:00 P.M.

134 *Alternating-Current Laboratory* (2)

The Staff

Continuation of Electrical Engineering 133. Laboratory fee, \$6. Mon. and Thurs., 8:10 to 11:00 P.M.



## ENGLISH \*

## FIRST SESSION

## ENGLISH COMPOSITION

- A *English Practice* (3) The Staff  
Instruction, drill, and exercises in grammar, vocabulary, spelling, and mechanics in general; instruction and exercises in composition and reading. This course is designed to prepare students for English 1. Section A: 9:10 A.M.; section B: 10:10 A.M.; section C: 7:10 P.M.

- I *Freshman English* \* (3) The Staff  
Review of grammar, exercises in composition, readings. Section A: 8:10 A.M.; section B: 9:10 A.M.; section C: 10:10 A.M.; section D: 7:10 P.M.

- 2x *Freshman English* (3) The Staff  
Continuation of English 1. Section A: 8:10 A.M.; section B: 9:10 A.M.; section C: 10:10 A.M.; section D: 6:10 P.M.

- 9 *Sophomore Composition* (3) Nichols  
A study of types of expository writing with weekly exercises. Prerequisite: English 1-2. 9:10 A.M.

## ENGLISH LITERATURE ‡

- 5I *Introduction to English Literature* (3) Mowry, Stone  
A historical survey. Section A: 8:10 A.M.; section B: 6:10 P.M.

- 9I *Introduction to European Literature* (3) Shepard  
Consideration of various types. 9:10 A.M.

- 126x *The Appreciation of Literature* (3) Stone  
The study of the principles of criticism and their application to various literary types. 5:10 P.M.

- 162x *Victorian Literature* (3) Shepard  
Poetry and prose from 1830 to 1900. 10:10 A.M.

- 182x *The English Novel from Dickens to Woolf* (3) Shepard  
11:10 A.M.

- 222x *The Age of Chaucer* (3) Stone  
8:10 P.M.

## AMERICAN LITERATURE ‡

- 7I *Introduction to American Literature* (3) Coberly  
A historical survey. From the beginnings to the Civil War. 10:10 A.M.

\* Students registered in English 1 are tested in the minimum essentials of standard usage, vocabulary, writing skill, and reading speed and comprehension. Those students who showed marked superiority may, upon passing of further tests, be exempted from one or both terms of the Freshman English course; those who show deficiencies will be assigned to English A.

‡ English 1-2 is prerequisite to all other courses in English.  
§ English 51-52, 71-72, or 91-92 is prerequisite to all second group courses except English 125 and 126.



- 173 *Major American Poets* (3) Coberly  
Advanced critical study of significant writers and movements from beginnings through nineteenth century. 9:10 A.M.
- 177 *The American Novel* (3) Coberly  
Historical and critical study of significant novels and short stories from the beginnings through nineteenth century. 11:10 A.M.

## SECOND SESSION

## ENGLISH COMPOSITION

- A *English Practice* (3) The Staff  
Instruction, drill, and exercises in grammar, vocabulary, spelling, and mechanics in general; instruction and exercises in composition and reading. This course is designed to prepare students for English 1. 6:10 P.M.
- B *English for Foreign Students* (3) Allee  
A course in reading and writing designed to prepare the student for English 1. Special attention is given to spelling, syntax, grammar, idiom, and vocabulary. 6:10 P.M.
- 1X *Freshman English*\* (3) The Staff  
Review of grammar, exercises in composition, readings. Section A: 11:10 A.M.; section B: 6:10 P.M.
- 2 *Freshman English* (3) The Staff  
Continuation of English 1. Section A: 8:10 A.M.; section B: 9:10 A.M.; section C: 10:10 A.M.; section D: 7:10 P.M.
- 9X *Sophomore Composition* (3) Howard  
A study of types of expository writing with weekly exercises. 10:10 A.M.
- 10 *The Short Story* (3) Howard  
Some study of the technique of the short story and class criticism of student writing. 9:10 A.M.

## ENGLISH LITERATURE†

- 52 *Introduction to English Literature* (3) Linton, Day  
A historical survey. Section A: 8:10 A.M.; section B: 6:10 P.M.
- 92 *Introduction to European Literature* (3) Venezky  
Consideration of various types. 9:10 A.M.

\* Students registered in English 1 are tested in the minimum essentials of standard usage, vocabulary, writing skill, and reading speed and comprehension. Those students who showed marked superiority may, upon passing of further tests, be exempted from one or both terms of the Freshman English course; those who show deficiencies will be assigned to English A.

† English 1-2 is prerequisite to all other courses in English.  
‡ English 51-52, 71-72, or 91-92 is prerequisite to all second group courses except English 125 and 126.



- 122 *English Literature from the Beginnings to 1500* (3) Allee  
Chaucer. 7:10 P.M.
- 125x *The Evolution of Modern Speech* (3) Allee  
The development of the English language in a historical treatment of English grammar. 5:10 P.M.
- 140 *Milton* (3) Linton  
9:10 A.M.
- 165x *The Twentieth Century* (3) Linton  
British poetry, prose, and drama since 1900. 10:10 A.M.
- 252 *Studies in the Romantic Movement* (3) Day  
8:10 P.M.

## AMERICAN LITERATURE \*

- 72 *Introduction to American Literature* (3) Bolwell  
A historical survey. From the Civil War to the present day. 10:10 A.M.
- 176 *American Drama* (3) Bolwell  
Historical and critical study of significant plays and forms. The twentieth century. 11:10 A.M.

## GEOGRAPHY

## FIRST SESSION

- 51 *Introduction to Geography* (3) Campbell  
A study of geography as human ecology; an analysis of the physical and cultural environments, and the relationships that exist between these environments and man. 9:10 A.M.
- 163 *World Climates* (3) Abrahamson  
Climatic classifications; the distribution and geographic significance of world climates. 6:10 P.M.
- 231 *Seminar in Geography: the Geography of Recreation* (3) Campbell  
Application of geographic elements and methods to the analysis of an economic and social adaptation. Mon. and Wed., 7:10 to 9:00 P.M.
- 251 *Seminar: Problem Areas—Asia* (3) Trueblood  
A study of the underlying geographic factors contributing to social, economic, and political maladjustment in certain "problem areas" of Asia. Tues. and Thurs., 7:10 to 9:00 P.M.
- 299 *Thesis* (3) The Staff

\* English 51-52, 71-72, or 91-92 is prerequisite to all second group courses except English 125 and 126.



## SECOND SESSION

- 52 *Introduction to Earth Sciences* (3) Jewell  
An introduction to the sciences dealing with the physical earth: the lithosphere, the hydrosphere, and the atmosphere—with special emphasis upon those elements which most directly affect man's adjustment to his physical environment. 9:10 A.M.
- 215x *Seminar: Geographic Factors in American Foreign Policy* (3) Koenig  
Tues. and Thurs., 10:10 to 12:00 A.M.
- 232 *Seminar in Geography: the Geography of the Oceans* (3) Jewell  
Physical and cultural aspects of the oceans and their coasts. Rudimentary physical oceanography and marine ecology. Influence of the oceans on economic and political development of adjacent areas. Mon. and Wed., 7:10 to 9:10 P.M.
- 300 *Thesis* (3) The Staff

## GERMANIC LANGUAGES AND LITERATURES

## FIRST SESSION

- †1 *First-year German* (3) Rogers, Sehrt  
The essentials of German grammar, translation of easy prose. Section A: 9:10 A.M.; section B: 6:10 P.M.
- 2x *First-year German* (3) Rogers  
Continuation of German 1. 10:10 A.M.
- †3 *Second-year German* (3) Rogers, Sehrt  
Selections from modern German prose, review of grammar. Prerequisite: German 1-2 or two years of high school German. Section A: 11:10 A.M.; section B: 7:10 P.M.
- 4x *Second-year German* (3) Cokenias  
Continuation of German 3. 8:10 A.M.

## SECOND SESSION

- 2 *First-year German* (3) Legner, Cokenias  
The essentials of German grammar, translation of easy prose. Section A: 9:10 A.M.; section B: 6:10 P.M.
- †3x *Second-year German* (3) Legner  
Selections from modern German prose, review of grammar. Prerequisite: German 1-2 or two years of high school German. 10:10 A.M.
- 4 *Second-year German* (3) Legner, Cokenias  
Continuation of German 3. Section A: 11:10 A.M.; section B: 7:10 P.M.

† A dagger preceding on odd-numbered course indicates that it is the first half of a full-year course, the second half of which must be completed before credit is allowed.



## HISTORY \*

## FIRST SESSION

- 39 *The Development of European Civilization to 1648* (3) Kayser  
Primarily for freshmen. The political, social, economic, and cultural history of the Old World from ancient times through the Reformation period. 7:00 A.M.
- 40x *The Development of European Civilization Since 1648* (3) Davison  
A continuation of History 39 from the Reformation Period to the present. 6:10 P.M.
- 130x *Nationalism* (3) Kayser  
The historical evolution of modern nationalism. 8:00 A.M.
- 150x *European Diplomatic History* (3) Davison  
Background of the European state system and of diplomatic practices and relations since 1871, with emphasis on the policies and actions of the great powers and their statesmen. 5:10 P.M.
- 181 *Diplomatic History of the United States* (3) Merriman  
Tendencies toward isolation, expansion, and collectivism; disputes with foreign countries and their settlement; and the activities of the American secretaries of state and diplomatic agents: to the Civil War. 9:10 A.M.
- 182x *Diplomatic History of the United States* (3) Merriman  
A continuation of History 181 from the Civil War to the present. 10:10 A.M.
- 199 *Proseminar: the Literature and Method of History* (3) The Staff  
Limited to majors in history. Hours to be arranged.
- 249 *Seminar in European Diplomatic History* (3) Davison  
Tues. and Thurs., 8:00 to 10:00 P.M.
- 281 *Seminar in the Diplomatic History of the United States* (3) Merriman  
Tues. and Thurs., 1:00 to 3:00 P.M.
- 291 *Seminar* (3) The Staff  
Hours to be arranged.
- 299 *Thesis* (3) The Staff  
For candidates for the Master's degree in history. Hours to be arranged.

\* History 39-40 is prerequisite to courses 109 through 152; History 71-72, to courses 161 through 186.



## SECOND SESSION

- 71X *The Development of the Civilization of the United States* (3) Koenig  
Primarily for sophomores. The political, social, economic, and cultural forces of the United States in their world setting from 1492 to 1865. 7:00 A.M.
- 72 *The Development of the Civilization of the United States* (3) Koenig  
A continuation of History 71X from 1865 to the present. 8:00 A.M.
- 161X *Latin American Civilization* (3) Wilgus  
Development of political, economic, social, and institutional affairs of the Ibero-American colonies. 5:10 P.M.
- 162 *Latin American Civilization* (3) Wilgus  
A continuation of History 161X. 6:10 P.M.
- 173X *Representative Americans* (3) Gray  
A biographical approach to national history. Some fifty significant and pivotal personalities in the development of the United States in government, business, education, science, religion, journalism, the arts, and social reform. 9:10 A.M.
- 174 *Economic History of the United States* (3) Gray  
Main trends in the development of American agriculture, industry, and trade since 1607, with emphasis on tendencies and problems since the Civil War. 10:10 A.M.
- 200 *Proseminar: the Literature and Method of History* (3) The Staff  
Hours to be arranged.
- 262 *Seminar in Latin American History* (3) Wilgus  
Tues. and Thurs., 8:00 to 10:00 P.M.
- 272 *Seminar in the Social History of the United States* (3) Gray  
Tues. and Thurs., 1:00 to 3:00 P.M.
- 292 *Seminar* (3) The Staff  
Hours to be arranged.
- 300 *Thesis* (3) The Staff  
Hours to be arranged.

## LAW

## FIRST SESSION

- 112X *Contracts* (4) Burke  
Promissory obligation: offer and acceptance, consideration, statute of frauds, formal instruments, rights of third parties, assignments, joint obligations, conditions, performance, discharge. Mon. and Tues. 12:10 to 1:00 P.M.; Wed., Thurs., and Fri., 11:10 A.M. to 1:00 P.M.



- 129 *Legal Method and Legal System* (4) Benson  
Introduction to study of substantive and procedural law. Examination of basic concepts with training in method and technique of case law, based upon modern records in state and federal cases and individual practice in the use of law books and legal writing. Importance of language in law and legal reasoning, both apart from and in connection with statutory interpretation and as affected by the use of precedents, under the doctrines of stare decisis, law of the case, and res judicata. Background on development of the English and American legal systems; organization of the judiciary and the bar, stressing enforcement of ethical standards. Mon., Tues., and Wed., 9:10 to 11 A.M.; Thurs. and Fri., 9:10 to 10:00 A.M.
- 133 *Property I* (4) \_\_\_\_\_  
Concepts of property, possession, and ownership; legal relations with respect to chattels and documentary intangibles created by gift, sale, pledge, lien, bailment, etc. Mon. through Thurs., 5:50 to 7:40 P.M.
- 138x *Property II* (4) Reno  
Real property; introduction; estates, seisin, landlord and tenant; future interests at common law and under the statutes of uses and wills; merger, elementary study of remoteness and powers; adverse possession; prescription; natural rights. Mon. through Thurs., 5:50 to 7:40 P.M.
- 231 *Equity* (4) \_\_\_\_\_, York  
Specific performance of contracts; equitable conversion; statute of frauds; mutuality; conditions; defenses; equitable servitudes; powers of an equity court; effect of decrees, interpleader, bills of peace, cloud on title, rescission and reformation, mistake. Section A: Mon. and Tues., 9:10 to 10:00 A.M.; Wed., Thurs., and Fri., 9:10 to 11:00 A.M.; section B: Mon. through Thurs., 5:50 to 7:40 P.M.
- 246x *Negotiable Instruments* (4) Orentlicher  
Bills of exchange, promissory notes and checks, especially under the Negotiable Instruments Law. Mon., Tues., and Wed., 11:10 A.M. to 1:00 P.M.; Thurs. and Fri., 12:10 to 1:00 P.M.
- 248x *Property III* (2) Fey  
Conveyances, rents, easements, profits, licenses, covenants running with the land, and recording. Mon., Tues., Thurs., and Fri., 10:10 to 11:00 A.M.
- 254x *Wills* (2) Fey  
Formation and revocation of wills; testate and intestate succession. Mon., Tues., Thurs., and Fri., 9:10 to 10:00 A.M.
- 315 *Conflict of Laws* (4) Taintor, Stahorn  
Study of cases involving foreign elements; principles of jurisdiction and limitations upon its exercise; procedure, torts, workmen's compensation, contracts, property, family law, administration of estates, business associations. Section A: Mon. and Tues., 9:10 to 10:00 A.M.; Wed., Thurs., and Fri., 9:10 to 11:00 A.M.; section B: Mon. through Thurs., 5:50 to 7:40 P.M.



317 *Creditors' Rights* (4)

Remedies of unsecured creditors: judgments, fraudulent conveyances, creditors' agreements, equity and statutory receiverships, and bankruptcy. The general approach is that of law administration. Mon., Tues., and Wed., 11:10 A.M. to 1:00 P.M.; Thurs. and Fri., 12:10 to 1:00 P.M.

381 *Trusts* (4)

Creation, elements, administration, enforcement, termination. Liabilities to and of third persons. Resulting and constructive trusts. Mon. through Thurs., 5:50 to 7:40 P.M. Reiblich

## SECOND SESSION

112 *Contracts* (4)

Promissory obligation: offer and acceptance, consideration, statute of frauds, formal instruments, rights of third parties, assignments, joint obligations, conditions, performance, discharge. Mon. through Thurs., 5:50 to 7:40 P.M. Weaver

123x *Criminal Law and Procedure* (4)

Elements of criminal liability; specific crimes; combinations of persons in crime; criminal procedure. Mon. and Tues., 12:10 to 1:00 P.M.; Wed., Thurs., and Fri., 11:10 A.M. to 1:00 P.M. Cooper

133x *Property I* (4)

Concepts of property, possession, and ownership; legal relations with respect to chattels and documentary intangibles created by gift, sale, pledge, lien, bailment, etc. Mon., Tues., and Wed., 9:10 to 11:00 A.M.; Thurs. and Fri., 9:10 to 10:00 A.M. Borroughs

214 *Constitutional Law* (4)

Historical introduction; judicial approach and methods; doctrine of the separation of powers; powers of the National Government; the federal system; relation of the state courts and the federal courts. Section A: Mon., Tues., and Wed., 11:10 A.M. to 1:00 P.M.; Thurs. and Fri., 12:10 to 1:00 P.M.; section B: Mon. through Thurs., 5:50 to 7:40 P.M. Farage, Collier

234 *Evidence* (4)

Functions of court and jury; witnesses; hearsay, opinion, and circumstantial evidence; proof of authenticity and contents of writings. Mon. and Tues., 9:10 to 10:00 A.M.; Wed., Thurs., and Fri., 9:10 to 11:00 A.M. Fryer

311x *Corporations* (4)

Legal requirements as to contributions of capital; powers and rights of corporations, corporate officials, and shareholders. Mon. and Tues., 9:10 to 10:00 A.M.; Wed., Thurs., and Fri., 9:10 to 11:00 A.M. Davison

333x *Legislation* (4)

Justiciable aspects of the legislative process; forms and types of statutes; principles of statutory interpretation, structure, and drafting. Mon., Tues., and Wed., 11:10 A.M. to 1:00 P.M.; Thurs. and Fri., 12:10 to 1:00 P.M.



**362 Security Transactions (4)**

Security interests in real and personal property, their creation, transfer, enforcement, and extinguishment, together with security problems in the fields of suretyship and bankruptcy. Mon. through Thurs., 5:50 to 7:40 P.M.

**SIXTEEN-WEEK TERM**

June 6th to September 26th

**102S Agency (2)**

Problems of agency in the conduct of business. Fri., 5:50 to 7:40 P.M.

**256S Sales (2)**

Common law, Uniform Sales Act and related statutes. Intention to transfer of property interest (specific, unascertained, and future goods); specification and appropriation; cash and conditional sales; C.O.D., F.O.B., and C.I.F. shipments; negotiable bills of lading and warehouse receipts; trust receipts; fraud on seller, retention of possession, and bulk sales; remedies of seller and buyer, including suit for price, stoppage in transit, seller's warranties; inspection. Fri., 5:50 to 7:40 P.M.

**447S Municipal Corporations (2)**

McIntire

Municipal corporations: organization, powers, functions, and legal relations of local governmental units. Fri., 5:50 to 7:40 P.M.

**MATHEMATICS****FIRST SESSION****Algebra (without college credit)**

11:10 A.M.

**Plane Geometry (without college credit)**

10:10 A.M.

**3 College Algebra (3)**

The Staff

Prerequisite: one year each of high school algebra and high school geometry. Section A: 9:10 A.M.; section B: 7:10 P.M.

**6x Plane Trigonometry (3)**

The Staff

Prerequisite: two years of high school algebra and one year of high school geometry, or Mathematics 3. Section A: 11:10 A.M.; section B: 6:10 P.M.

**12x Analytic Geometry (3)**

The Staff

Prerequisite: Mathematics 6, or two years of high school algebra, one year of high school geometry, and one-half year of high school trigonometry. Section A: 11:10 A.M.; section B: 7:10 P.M.

**19 Differential Calculus (3)**

Johnston,

Prerequisite: Mathematics 12. Section A: 9:10 A.M.; section B: 7:10 P.M.



- 20X *Integral Calculus* (3) Nelson, \_\_\_\_\_  
Prerequisite: Mathematics 19. Section A: 10:10 A.M.; section B:  
6:10 P.M.
- 112X *Mathematics for Engineers and Scientists* (3) Nelson  
Prerequisite: Mathematics 132. 9:10 A.M.
- 125 *Advanced Algebra* (3) Johnston  
Prerequisite: Mathematics 20. 10:10 A.M.
- 132X *Differential Equations* (3)  
Prerequisite: Mathematics 20. 6:10 P.M.

## SECOND SESSION

- 3X *College Algebra* (3) The Staff  
Prerequisite: one year each of high school algebra and high school  
geometry. Section A: 9:10 A.M.; section B: 6:10 P.M.
- 6 *Plane Trigonometry* (3) The Staff  
Prerequisite: two years of high school algebra and one year of high  
school geometry, or Mathematics 3. Section A: 10:10 A.M.; section B:  
7:10 P.M.
- 12 *Analytic Geometry* (3) The Staff  
Prerequisite: Mathematics 6, or two years of high school algebra, one  
year of high school geometry, and one-half year of high school trig-  
onometry. Section A: 11:10 A.M.; section B: 6:10 P.M.
- 19X *Differential Calculus* (3) Mears, \_\_\_\_\_  
Prerequisite: Mathematics 12. Section A: 11:10 A.M.; section B:  
7:10 P.M.
- 20 *Integral Calculus* (3) Taylor, Williams  
Prerequisite: Mathematics 19. Section A: 9:10 A.M.; section B:  
7:10 P.M.
- 123X *Theory of Equations* (3)  
Prerequisite: Mathematics 20. 6:10 P.M.
- 132 *Differential Equations* (3) Mears  
Prerequisite: Mathematics 20. 10:10 A.M.

## MECHANICAL ENGINEERING

## FIRST SESSION

- III *Thermodynamics* (3) Kabelac  
With introductory study of laws of heat transmission. Prerequisite:  
Physics 8. Prerequisite or concurrent registration: Mathematics 20.  
Mon., Tues., Thurs., and Fri., 8:45 to 10:00 A.M.



## SECOND SESSION

- 112 *Thermodynamics* (3) Cruickshanks  
Continuation of Mechanical Engineering 111. Prerequisite: Mechanical Engineering 111. Mon., Tues., Thurs., and Fri., 8:45 to 10:00 A.M.

## PHILOSOPHY

## FIRST SESSION

- 51 *Introduction to Philosophy* (3) Gauss  
A critical introduction to the problems of modern philosophy in relation to scientific and social developments since the Renaissance. 10:10 A.M.
- 111 *History of Philosophy* (3) Gauss  
A history of philosophy in the western world from 600 B.C. to the Middle Ages. 9:10 A.M.
- 121 *Logic and Scientific Method* (3) Gauss  
An introduction to the study of formal logic. 6:10 P.M.

## SECOND SESSION

- 52 *Introduction to Philosophy* (3) Rose  
Continuation of Philosophy 51. Introduction to issues in the philosophy of science and social philosophy. 10:10 A.M.
- 112 *History of Philosophy* (3) Rose  
From the Middle Ages to Kant. 9:10 A.M.
- 122 *Logic and Scientific Method* (3) Rose  
Continuation of Philosophy 121. Theories of induction, probability, and scientific method. 6:10 P.M.

## PHYSICS

## FIRST SESSION

- 7 *General Physics* (3) Meijer, Christman  
Elementary electricity and magnetism. Prerequisite: Physics 5\*; high school algebra and plane geometry. Material fee, \$6.

Section	Lecture	Recitation	Laboratory
A ...TTh	11:10 am...MW	3:10 pm...TTh	2:10 - 4:30 pm
B ...TTh	11:10 am...MW	11:10 am...MW	2:10 - 4:30 pm
C ...TTh	6:10 pm...MW	7:10 pm...MW	8:10 -10:30 pm
D ...TTh	6:10 pm...MW	6:10 pm...TTh	8:10 -10:30 pm

- 8x *General Physics* (3) Meijer  
Foundations of Modern Physics. The experimental evidence concerning light waves and quanta, X-rays, and radiowaves; electrons, protons, and other elementary particles; atomic and molecular structure; and nuclear physics. Prerequisite: Physics 6 and 7.

\* This prerequisite may be waived for students who have credit for a high school physics course which included individual laboratory work, providing they pass the qualifying examination given at the dates specified in the University calendar.



- 239x *Seminar: Personnel Administration* (3) Torpey  
Tues. and Thurs., 8:10 P.M.
- 272 *Problems in International Politics and Organization* (3) Hadsel  
Mon. and Wed., 8:10 P.M.

## PSYCHOLOGY

## FIRST SESSION

- I *General Psychology* \* (3) Tuthill, Fox  
The fundamental principles underlying human behavior. Section A: 8:10 A.M.; section B: Mon., Wed., and Fri., 7:10 to 8:30 P.M.
- 22x *Applied Psychology* (3) Caldwell  
The applications of psychology in business, industry, medicine, law, guidance, education, and social problems. 10:10 A.M.
- 22x *Introduction to Educational Psychology* (3) Faith  
Consideration of individual and group differences, adjustments, and the psychology of learning in relation to education and training. 9:10 A.M.
- 117 *Physiological Psychology* (3) Fox  
Structure, function, and phylogeny of receptors, nervous system, and effectors as mediators of behavior, including drives, learning, and emotions. Mon., Wed., and Fri., 5:40 to 7:00 P.M.
- 151 *Social Psychology* (3) Tuthill  
The social foundations of attitudes and behavior. Individual adjustment to group situations, such as the family, school, fraternity, and occupation. The psychological bases of race prejudice, nationalism, and war. 9:10 A.M.
- 193 *Readings in Psychology* (3) The Staff  
Supervised readings on specific topics in psychology, with conferences, for undergraduate majors. Open only to seniors with 18 or more credits in psychology with a quality point index of 3.00 or higher. Special permission of staff member under whom course is to be taken is necessary. Time to be arranged.
- 196x *History and Systems of Psychology* (3) Caldwell  
A survey of the contemporary schools of psychology. Prerequisite: 12 credits in psychology. Mon., Wed., and Fri., 11:10 A.M. to 12:30 P.M.
- 205 *Field Work in Psychology* (3) The Staff  
Supervised field work in agencies providing psychological service. Admission by permission of the Executive Officer of the Department. Hours to be arranged.

\* Psychology I is prerequisite to all other courses in psychology.



- 207 *Readings in Psychology for Graduate Students* (3) The Staff  
Supervised readings with conferences on specified topics in psychology. Hours to be arranged.
- 223 *Seminar: Psychology of Learning* (3) Fox  
Contemporary theories of learning with a consideration of the systematic concepts and experiments which result from the various theories. Tues. and Thurs., 3:10 to 5:00 P.M.
- 227 *Seminar: Counseling and Guidance* (3) Davis  
Recent developments and current problems in vocational, educational, and personal guidance in various types of agencies with particular reference to education. Prerequisite: educational or psychological measurements. Tues. and Thurs., 7:10 to 9:00 P.M.
- 251 *Seminar: Advanced Social Psychology* (3) Tuthill  
Current research and theory in social psychology; group dynamics, ego-involvements, action research, and social interaction theory. Mon. and Wed., 1:10 to 3:00 P.M.
- 272x *Seminar: Theories of Personality* (3) Caldwell  
A survey of the various theories of personality, with emphasis upon theoretical problems and methodology in the field of personality study. Tues. and Thurs., 1:10 to 3:00 P.M.
- 295 *Research in Psychology* The Staff  
Hours and credits to be arranged.
- 299 *Thesis* (3) The Staff

## SPECIAL SIX-WEEK SESSION

- 228 *Seminar: Techniques of Counseling* (3) Dreese  
Specific types of vocational, educational, and personal counseling problems approached through the case method. Prerequisite: recent previous course in counseling and guidance and familiarity with individual analysis methods. 10:20 to 11:25 A.M.

## SECOND SESSION \*

- 1x *General Psychology\** (3) Hunt, Phillips  
The fundamental principles underlying human behavior. Section A: 8:10 A.M.; section B: Mon., Wed., and Fri., 7:10 to 8:30 P.M.
- 2 *Applied Psychology* (3) Mosél  
The applications of psychology in business, industry, medicine, law, guidance, education, and social problems. Mon., Wed., and Fri., 11:10 A.M. to 12:30 P.M.
- 29x *Child Psychology* (3) Phillips  
A genetic approach to the study of the child. Mon., Wed., and Fri., 5:40 to 7:00 P.M.
- 98 *Abnormal Psychology* (3) Hunt  
The causes, diagnosis, treatment, and prevention of the various types of maladjustments and mental disorders. 9:10 A.M.

\* Psychology 1 is prerequisite to all other courses in psychology.



## SECOND SESSION

## French \*

- 2 *First-year French* (3) The Staff  
Continuation of French 1. Section A: 11:10 A.M.; section B: 6:10 P.M.

- †3x *Second-year French* (3) The Staff  
Reading of modern French, grammar review, oral practice. Pre-requisite: French 1-2 or two years of high school French. Section A: 10:10 A.M.; section B: 6:10 P.M.

- 4 *Second-year French* (3) The Staff  
Continuation of French 3. Section A: 8:10 A.M.; section B: 7:10 P.M.

- 110 *French Conversation and Composition* (3) The Staff  
Section A: 8:10 A.M.; section B: 6:10 P.M.

- 135x *The Modern Novel in France* (3) Keating  
Reading, analysis, and discussion of typical plays and dramatic trends of the nineteenth and twentieth centuries. Lectures, collateral reading, class discussion. 9:10 A.M.

## Spanish \*

- 2 *First-year Spanish* (3) The Staff  
Continuation of Spanish 1. Section A: 8:10 A.M.; section B: 6:10 P.M.

- †3x *Second-year Spanish* (3) The Staff  
Reading of modern Spanish, grammar review, oral practice. Pre-requisite: Spanish 1-2 or two years of high school Spanish. Section A: 9:10 A.M.; section B: 7:10 P.M.

- 4 *Second-year Spanish* (3) The Staff  
Continuation of Spanish 3. Section A: 10:10 A.M.; section B: 11:10 A.M.; section C: 6:10 P.M.

- 110 *Spanish Conversation and Composition* (3) Supervia  
Section A: 8:10 A.M.; section B: 7:10 P.M.

- 136 *The Modern Drama in Spain* (3) Supervia  
A study of selected plays with an appreciation of their social and literary significance. Lectures, collateral reading, class discussion. 10:10 A.M.

## SOCIOLOGY ‡

## FIRST SESSION

- 1 *Introductory Sociology* ‡ (3) Lavell  
The origin and development of culture, man's social nature, types of groups and social institutions, social processes, social change, and social control. Section A: 9:10 A.M.; section B: 6:10 P.M.

\* A standardized placement examination will be required of all entering students who wish to continue in college the language begun in high school. Upon completion of the examination, assignment will be made to the appropriate course, with credit to be assigned on the usual basis.

† A dagger preceding an odd-numbered course indicates that it is the first half of a full-year course, the second half of which must be completed before credit is allowed.

‡ Sociology 1 is prerequisite to all other courses in sociology.



- 127 *Community Organization* (3) Geisert  
The study of social interaction in American communities, factors making for disorganization, community leadership, methods of organizing social forces to meet community needs. 11:10 A.M.

- 133 *The Family* (3) Geisert  
A study of the primitive and modern family, changing functions and roles of the family and its members, factors promoting disorganization, family crises, family reorganization. 10:10 A.M.

SECOND SESSION

- 2 *Introductory Sociology* (3) Yeager  
The factors producing social change and social disorganization, an analysis of the problems arising from the disorganization of the individual and the family. Section A: 9:10 A.M.; section B: 6:10 P.M.

- 132 *Marriage* (3) Yeager  
The reasons for marriage, marriage laws, mate selection, courtship, husband-wife relations, factors in marital adjustment, marriage prediction and counseling. 10:10 A.M.

SPEECH

FIRST SESSION

- A *Speech Clinic* Bielski and Staff  
Individual or group lessons, without academic credit, for such speech difficulties as lisping, cleft palate, articulatory problems, and stuttering. Fee: for individual lesson, \$5; for group lesson, \$3. Time to be arranged.

- B *American Speech for Foreign Students* Bielski and Staff  
Individual or group instruction, without academic credit, in the formation of the sounds of spoken English, with emphasis on rhythm and inflection. The International Phonetic Alphabet is used. Fee: for individual lesson, \$5; for group lesson, \$3. Time to be arranged.

- 11 *Training the Speaking Voice* (3) Bielski and Staff  
Developing ease, naturalness, and clarity in the speaking voice. Analysis of individual voices through recordings. Phonetic approach to the study of the sounds of English and the standards of speech. Recording fee, \$1.50. Section A: 10:10 A.M.; section B: 11:10 A.M.; section C: 8:10 P.M.

- 12x *Oral Reading* (3) Leggette  
Reading to others, theory and practice of interpreting the printed page. Prerequisite: Speech 11. Recording fee, \$1.50. 10:10 A.M.

- 21 *Effective Speaking* (3) Leggette, Mangum  
Preparation and delivery of extempore speeches; developing confidence and poise, body and voice control; selecting and organizing material. Recording fee, \$1.50. Section A: 8:10 A.M.; section B: 9:10 A.M.; section C: 10:10 A.M.; section D: 7:10 P.M.



## ZOOLOGY

## FIRST SESSION

- 1** *Introduction to Zoology* (4) Mortensen and Staff  
An introduction to the study of the structure, functions, and relation of animals, and of the fundamental biological principles involved. Material fee, \$4.50. Lecture—section A: Mon. through Thurs., 1:10 P.M.; section B: Mon. through Thurs., 6:10 P.M. Laboratory—section S: Mon. through Thurs., 2:10 to 4:00 P.M.; section T: Mon. through Thurs., 7:10 to 9:00 P.M.

- 142x** *Comparative Vertebrate Anatomy* (3) Hansen  
Lectures on the organ systems of the vertebrates; laboratory dissection of the cat. Prerequisite: Zoology 2. Material fee, \$6. Lecture—Mon. and Wed., 2:10 P.M.; laboratory—Mon. through Thurs., 3:10 to 5:00 P.M.

- 144x** *Introduction to Vertebrate Embryology* (3) Hansen  
The origin and early development of the individual and the formation of organ systems. Emphasis is placed on the frog, chick, and pig, with reference to the human embryo. Prerequisite: Zoology 2 and 141 or 142. Material fee, \$6. Lecture—Mon. and Wed., 6:10 P.M.; laboratory—Mon. through Thurs., 7:10 to 9:00 P.M.

- 295** *Research* (3) The Staff  
Investigation of special problems. Hours to be arranged.

- 299** *Thesis* (3) The Staff

## SECOND SESSION

- 2** *Introduction to Zoology* (4) Young and Staff  
Continuation of Zoology 1. Material fee, \$4.50. Lecture—section A: Mon. through Thurs., 1:10 P.M.; section B: Mon. through Thurs., 6:10 P.M. Laboratory—section S: Mon. through Thurs., 2:10 to 4:00 P.M.; section T: Mon. through Thurs., 7:10 to 9:00 P.M.

- 105x** *Entomology* (3) Munson  
A study of the elementary morphology, physiology, and ecology of insects, with an introduction to the taxonomy of the more important groups. Prerequisite: Zoology 1, or the equivalent. Material fee, \$5. Lecture—Mon. and Wed., 2:10 P.M.; laboratory—Mon. through Thurs., 3:10 to 5:00 P.M.

- 137x** *Histology* (3) Young  
An introduction to the microscopical anatomy of normal tissues and organs. Prerequisite: Zoology 2. Material fee, \$6. Lecture—Mon. and Wed., 7:10 P.M.; laboratory—Mon. and Wed., 8:10 to 10:00 P.M. and Tues. and Thurs., 7:10 to 9:00 P.M.

- 296** *Research* (3) The Staff  
Investigation of special problems. Hours to be arranged.

- 300** *Thesis* (3) The Staff



## SCHEDULE OF CLASSES



## HOURLY SCHEDULE OF CLASSES \*

FIRST SESSION 4—JUNE 6 to JULY 31

## MORNING CLASSES

7:10	8:10	9:10	10:10	11:10
Bus Adm 157 Bus Adm 171 Hist 39 (at 7)	Bus Adm 51A Bus Adm 132x Bus Adm 169 Chem 11K lab. (TWThF to 10) Eng 1A Eng 2xA Eng 51A Fr 3A Fr 4xA Fr 109A Ger 4x Hist 130x (at 8) ME 111 (MTThF 8:45-10) Psych 1A Span 1A Span 109A Speech 21A	Biol 1 lect. (TTh) Biol 1 trip (WF to 12) Bot 107 lect. (S) Bus Adm 151A Chem 21K lab. (TWThF to 12) Chem 151 lect. (MWF) Chem 151K lab. (TTh to 12) Econ 1A Ed 109 (MTWTh) Eng A—sect. A (Comp.) Eng 1B (Comp.) Eng 2xB (Comp.) Eng 9 (Comp.) Eng 91 (Eng. Lit.) Eng 173 (Am. Lit.) Fr 136x Geog 51 Ger 1A Hist 181 Math 3A Math 19A	Biol 1 lab. (TTh to 12) Bot 107 trip (S to 1) Bus Adm 155 Chem 11 lect. (TWThF) Econ 101 Ed 121A Eng A—sect. B (MTWTh) Eng 1C (Comp.) Eng 2xC (Comp.) Eng 71 (Am. Lit.) Eng 162x (Eng. Lit.) Fr 2xA Ger 2x Hist 182x Math—Plane Geometry Math 20xA Math 125	Bot 1 lect. (TWThF) Bus Adm 145 Chem 11K rec. (TTh) Chem 151 lect. (MWF) Econ 166x Eng 177 (Am. Lit.) Eng 182x (Eng. Lit.) Fr 1A Ger 3A Math—Algebra Math 6xA Math 12xA Phys 7A lect. (TTh) Phys 7B lect. (TTh) Phys 7B rec. (MW) Pol Sc 10x Pol Sc 112x Pol Sc 181 Psych 196x (MWF to 12:30) Relig 59A Soc 127 Span 3B

\* Seminars and research courses for which hours are to be arranged, courses in the Law School, the special sessions of the School of Education, and the fifteen-week term will be found under departmental announcements.



FIRST SESSION—MORNING CLASSES (Continued)

7:10	8:10	9:10	10:10	11:10
		Math 112x Phil 111 Phys 55C lect. (S) Pol Sc 118x Psych 22x Psych 151 Relig 10x Soc 1A Span 2xA Span 4xA Speech 21B Speech 22x Stat 52xA	Phil 51 Phys 55C lab. (S to 12:30) Pol Sc 9A Pol Sc 171 Psych 2x Soc 133 Span 3A Span 135 Speech 11A Speech 12x Speech 21C Stat 51A lect.	Speech 11B



## FIRST SESSION—AFTERNOON CLASSES

12:10	1:10	2:10	3:10
Bot 1 lab. (TWThF to 1)	Chem 11M lab. (TWThF to 3) Chem 21 lect. (TWThF) Hist 281 (TTh 1-3) Phys 8xA lect. (MWF) Phys 8xA rec. (TTh) Psych 251 (MW to 3) Psych 272x (TTh to 3) Zoo 1A lect. (MTWTh)	Biol 115 lect. (MW) Biol 115 lab. (TTh to 4) Chem 21M lab. (TWThF to 5) Chem 151M lab. (TTh to 5) Phys 7A lab. (TTh to 4:30) Phys 7B lab. (MW to 4:30) Phys 55A lect. (TTh) Phys 55B lect. (WF) Stat 51M lab. (MW 2-3:30) Stat 51N lab. (TTh 2-3:30) Zoo 1S lab. (MTWTh to 4) Zoo 142x lect. (MW)	Biol 115 lab. (MW to 5) Chem 11M rec. (TTh) Phys 7A rec. (MW) Phys 55A lab. (TTh to 5:30) Phys 55B lab. (WF to 5:30) Psych 223 (TTh to 5) Zoo 142x lab. (MTWTh to 5)

## FIRST SESSION—EVENING CLASSES

5:10	6:10	7:10	8:10
Econ 181 Eng 126x (Eng. lit.) Hist 150x Psych 117 (MWF 5:40-7)	Biol 127 Bot 107 lect. (Th) Bus Adm 51B Bus Adm 102x Bus Adm 151B Bus Adm 215 (MT to 8:30) CE 21 (TTh to 8) Econ 1B Econ 102x Econ 205 (MW to 8) Econ 225 (TTh to 8)	Bus Adm 115 (MTW to 8:35) Bus Adm 153 (MTW to 8:35) Econ 144x Eng A—sect. C (Comp.) Eng 1D (Comp.) Fr 3B Fr 4xB Geog 231 (MW to 9) Geog 251 (TTh to 9) Ger 3B Math 3B	EE 13 (MTh to 11) EE 105 (MTh to 11) EE 133 (MTh to 11) Eng 222x (Eng. lit.) Hist 249 (TTh 8-10) Phys 7C lab. (MW to 10:30) Phys 7D lab. (TTh to 10:30) Phys 55C lab. (W to 10:30)



Evening Classes (Continued)

The Summer Sessions

71

5:10	6:10	7:10	8:10
	<p>Ed 121B (MTWTh)  EE 9 (to 7:10)  Eng 2xD (Comp.)  Eng 51B (Eng. lit)  Fr 1B  Fr 2xB  Fr 109B  Geog 163  Ger 1B  Hist 40x  Math 6xB  Math 20xB  Math 132x  Phil 121  Phys 7C lect. (TTh)  Phys 7D lect. (TTh)  Phys 7D rec. (MW)  Phys 191  Pol Sc 151  Relig 59B  Soc 1B  Span 1B  Span 3C  Speech 101  Stat 51B lect.  Stat 117  Zoo 1B lect. (MTWTh)  Zoo 144x lect. (MW)</p>	<p>Math 12xB  Math 19B  Phys 7C rec. (MW)  Phys 8xB lect. (MWF)  Phys 8xB rec. (TTh)  Phys 55C lect. (W)  Pol Sc 9B  Psych 1B (MWF to 8:30)  Psych 227 (TTh to 9)  Span 2xB  Span 4xB  Span 109B  Speech 21D  Stat 52xB  Stat 115 lect.  Zoo 1T lab. (MTWTh to 9)  Zoo 144x lab. (MTWTh to 9)</p>	<p>Pol Sc 213 (TTh)  Pol Sc 281 (MW)  Speech 11C  Stat 51P lab. (MW 8-9:30)  Stat 115 lab. (TTh 8-9:30)</p>



## SECOND SESSION\*—AUGUST 2 to SEPTEMBER 22

## MORNING CLASSES

7:10	8:10	9:10	10:10	11:10
Bus Adm 112 Hist 71x (at 7) Phys 6A lab. (MW 7:30-10) Pol Sc 172	Bus Adm 52A Bus Adm 168 Chem 12K lab. (TWThF to 10) Eng 2A (Comp.) Eng 52A (Eng. lit.) Fr 4A Fr 110A Hist 72 (at 8) ME 112 (MTThF 8:45-10) Pol Sc 9x Psych 1xA Span 2A Span 110A	Biol 2 lect. (TTh) Biol 2 trip (WF to 12) Bot 138 lect. (S to 11) Bus Adm 136 Bus Adm 152A Chem 22K lab. (TWThF to 12) Chem 152K lab. (TWThF to 12) Econ 2A Ed 110 (MTWTh) Eng 2B (Comp.) Eng 10 (Comp.) Eng 92 (Eng. lit.) Eng 140 (Eng. lit.) Fr 135x Geog 52 Ger 2A Hist 173x Math 3xA Math 20A Phil 112 Pol Sc 182 Psych 98 Soc 2A	Biol 2 lab. (TTh to 12) Chem 12 lect. (TWThF) Econ 121x Ed 122A (MTWTh) Eng 2C (Comp.) Eng 9x (Comp.) Eng 72 (Am. lit.) Eng 165x (Eng. lit.) Fr 3xA Geog 215x (TTh to 12) Ger 3x Hist 174 Math 6A Math 132 Phil 52 Pol Sc 10A Pol Sc 128 Soc 132 Span 4A Span 136 Speech 12A Speech 21xB Stat 52A	Bot 2 lect. (TWThF) Chem 12K rec. (TTh) Econ 182 Eng 1xA (Comp.) Eng 176 (Am. lit.) Fr 2A Ger 4A Math 12A Math 19xA Phys 6A lect. (TTh) Phys 6A rec. (MW) Phys 6B lect. (TTh) Phys 6B rec. (MW) Pol Sc 129x Psych 2 (MWF to 12:30) Span 4B Speech 11xA Speech 12B



## SECOND SESSION—MORNING CLASSES (Continued)

7:10	8:10	9:10	10:10	11:10
		Span 3xA Speech 21xA Speech 22 Stat 51xA lect.		

## SECOND SESSION—AFTERNOON CLASSES

12:10	1:10	2:10	3:10
Bot 2 lab. (TWThF to 1)	Chem 12M lab. (TWThF to 3) Chem 22 lect. (TWThF) Chem 152 lect. (TWThF) Hist 272 (TTh 1-3) Phys 5xA lect. (MW) Phys 5xA rec. (TTh) Phys 5xB lect. (MW) Psych 225x (MW to 3) Zoo 2A lect. (MTWTh)	Chem 22M lab. (TWThF to 5) Chem 152M lab. (TWThF to 5) Phys 5xA lab. (MW to 4:30) Phys 5xB rec. (TTh) Phys 6B lab. (MW to 4:30) Stat 51xM lab. (MW 2-3:30) Zoo 2S lab. (MTWTh to 4) Zoo 105x lect. (MW)	Chem 12M rec. (TTh) Phys 5xB lab. (TTh to 5:30) Psych 144 (MWF to 4:30) Zoo 105x lab. (MTWTh to 5)



## SECOND SESSION—EVENING CLASSES

5:10	6:10	7:10	8:10
Econ 146 Eng 125x (Eng. lit.) Hist 161x Psych 29x (MWF 5:40-7)	Bot 138 lect. (Th to 8) Bus Adm 52B Bus Adm 152B Bus Adm 291x (MT to 8:30) CE 22 (MWF to 8) Econ 2B Econ 214 (MW to 8) Econ 260 (TTh to 8) Ed 122B (MTWTh) EE 10 (to 7:10) Eng A (Comp.) Eng B (Comp.) Eng 1xB (Comp.) Eng 52B (Eng. lit.) Fr 2B Fr 3xB Fr 110B Ger 2B Hist 162 Math 3xB Math 12B Math 123x Phil 122 Phys 6C lect. (TTh) Phys 6D lect. (TTh) Phys 6D rec. (MW) Phys 106 Pol Sc 127x Pol Sc 226 (TTh)	Bus Adm 51x (MTW to 8:35) Bus Adm 165x Bus Adm 199x (MTW to 8:35) Econ 100x Eng 2D (Comp.) Eng 122 (Eng. lit.) Fr 4B Geog 232 (MW to 9:10) Ger 4B Math 6B Math 19xB Math 20B Phys 6C rec. (MW) Pol Sc 10B Psych 1xB (MWF to 8:30) Psych 131x (MWF to 8:30) Psych 248 (TTh to 9) Span 3xB Span 110B Speech 21xC Stat 51xB lect. Stat 116 lect. Zoo 2T lab. (MTWTh to 9) Zoo 137x lect. (MW) Zoo 137x lab. (TTh to 9)	EE 14 (MTh to 11) EE 106 (MTh to 11) EE 134 (MTh to 11) Eng 252 (Eng. lit.) Hist 262 (TTh 8-10) Phys 6C lab. (MW to 10:30) Phys 6D lab. (TTh to 10:30) Pol Sc 239x (TTh) Pol Sc 272 (MW) Stat 51xN lab. (MW 8-9:30) Stat 116 lab. (TTh 8-9:30) Zoo 137x lab. (MW to 10)



SECOND SESSION—EVENING CLASSES (Continued)

5:10	6:10	7:10	8:10
	Soc 2B Span 2B Span 4C Speech 11xB Stat 52B Stat 118 Zoo 2B lect. (MTWTh)		



Date	Place	Description	Remarks
Jan 1, 1900	New York	Arrived at New York from London.	Left London at 10:30 AM. Arrived at 1:30 PM.
Jan 2, 1900	New York	Visited the American Museum of Natural History.	Saw the collection of birds and mammals.
Jan 3, 1900	New York	Visited the American Museum of Natural History.	Saw the collection of birds and mammals.



## INDEX

- Academic Credit, 19-20
- Administration, officers of, 4-5
- Admission, 16-17, 25, 26-27, 27-28, 28, 29
- Associate in Arts, degree of, 25
- Bachelor of Arts, degree of, 26-27
- Bachelor of Science, degree of, 25, 26
- Biology, courses in, 34
- Botany, courses in, 34-35
- Business Administration, courses in, 35-37
- Calendar of the Summer Sessions, vi
- Chemistry, courses in, 37-39
- Civil Engineering, courses in, 39
- Columbian College, 25-27
- Combined curricula, Bachelor of Arts—Doctor of Medicine, 25
- Courses of instruction, 31-66
- Credit:
  - Indication of in course descriptions, 33
  - Maximum for Summer Sessions, 20
- Deans and Directors, 4-5
- Doctor of Education, degree of, 29
- Doctor of Philosophy, degree of, 27
- Economics, courses in, 39-41
- Education:
  - Courses in, 41-44
  - School of, 28-29
- Electrical Engineering, courses in, 44
- Engineering:
  - Courses in, 39, 44, 54-55
  - School of, 28
- English, courses in, 45-47
- Faculty of the Summer Sessions, 11-15
- Fees and financial regulations, 17-19
- Foreign Service Review Course, 29-30
- French, courses in, 61, 62
- Geography, courses in, 47-48
- German, courses in, 48
- Government, School of, 29-30
- Graduate Council, 27
- History, courses in, 49-50
- Hospital services, 18
- Junior College, 25
- Law:
  - Courses in, 50-53
  - School of, 27-28
- Library facilities, 8
- Living accommodations and costs, 20-21
- Master of Arts, degree of, 25, 26
- Master of Science, degree of, 25, 26
- Mathematics, courses in, 53-54
- Mechanical Engineering, courses in, 54-55
- Medical services, 18
- Officers of Administration, 4-5
- Philosophy, courses in, 55
- Physics, courses in, 55-56
- Political Science, courses in, 56-58
- Psychology, courses in, 58-60
- Refund of tuition, 19
- Registration, 17
- Regulations, 19-20
- Religion, courses in, 60
- Romance Languages, courses in, 61-62
- Schedule of classes, hourly, 67-75
- Sociology, courses in, 62-63
- Spanish, courses in, 60, 62
- Special Students, Division of, 30
- Speech, courses in, 63-64
- Staff of Instruction, 11-15
- Statistics, courses in, 64-65
- Student life, 20-21
- Trustees, Board of, 3
- University Students, Division of, 30
- University history, organization, academic status, location, educational facilities, 6-8
- Veterans Education, 21-22
- Withdrawal from the University, 19
- Zoology, courses in, 66







THE  
GEORGE  
WASHINGTON  
UNIVERSITY

BULLETIN  
THE LAW SCHOOL

VOL. XLIX

1950-51

No. 4

THE LAW SCHOOL

WASHINGTON, D. C.

PUBLISHED IN JUNE  
MCM

BY THE UNIVERSITY



THE LAW SCHOOL

1920-21



THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

---

VOL. XLIX

No. 4

---

THE LAW SCHOOL

---

WASHINGTON, D. C.

PUBLISHED IN JUNE  
MCML

BY THE UNIVERSITY



THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

No. 4

Vol. XLIX

THE LAW SCHOOL

WASHINGTON, D. C.

PUBLISHED IN JUNE  
1921

BY THE UNIVERSITY



# CALENDAR

## 1950-51

### CONTENTS

	PAGE
CALENDAR OF THE LAW SCHOOL.....	vi
THE UNIVERSITY .....	I
The Board of Trustees.....	3
Officers of Administration.....	4
History and Organization, Academic Status, Location.....	5
THE LAW SCHOOL.....	7
The Faculty and Staff of Instruction.....	9
General Information .....	15
Admission .....	18
Registration .....	20
Fees and Financial Regulations.....	20
Scholarships, Prizes, Loan Funds.....	22
Regulations .....	23
Student Life .....	25
The Degrees .....	27
COURSES OF INSTRUCTION.....	31
DEGREES CONFERRED, 1949-50.....	40
STUDENTS REGISTERED, 1949-50.....	48
SUMMARIES OF REGISTRATION, 1949-50.....	81
INDEX .....	87



# CALENDAR

1950-51

Date	Day	Occasion
1950		
Fall Term:		
Sept. 27-29.....	Wednesday through Friday .....	Registration
Oct. 2.....	Monday .....	Fall term begins
Nov. 11.....	Saturday .....	Fall Convocation. Holiday
Nov. 23-25.....	Thursday through Saturday .....	Thanksgiving recess
Dec. 22-Jan. 2....	Friday through Tuesday .....	Christmas recess
1951		
Jan. 3.....	Wednesday .....	Classes resume
		Last day for applications for degrees to be conferred in February
Jan. 5.....	Friday .....	Last day for receiving dissertations of candidates for the degree of Doctor of Juridical Science to be conferred the following May
Jan. 19-30 .....	Friday through Tuesday .....	Fall term examination period
Winter Term:		
Feb. 1 and 2.....	Thursday and Friday.	Registration
Feb. 5.....	Monday .....	Winter term begins
Feb. 22.....	Thursday .....	Winter Convocation. Holiday
March 23 and 24..	Friday and Saturday.	Easter recess
April 13.....	Friday .....	Last day for applications for degrees to be conferred in May
May 16-26.....	Wednesday through Saturday .....	Winter term examination period
May 27.....	Sunday .....	Baccalaureate Sermon
May 30.....	Wednesday .....	Commencement
Summer Term:		
June 4.....	Monday .....	Registration of new students the first session
June 5.....	Tuesday .....	First-session classes begin
July 4.....	Wednesday .....	Independence Day. Holiday
July 31.....	Tuesday .....	First summer session ends
		Registration for the second session of the summer term
Aug. 1.....	Wednesday .....	Second-session classes begin
Aug. 6.....	Monday .....	Last day for applications for degrees to be conferred in November
Sept. 3.....	Monday .....	Labor Day. Holiday
Sept. 25.....	Tuesday .....	Second summer session ends
Sept. 26-28.....	Wednesday through Friday .....	Registration for the fall term the academic year 1951-52



## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President and Vice Presidents of the University ex officio and the following persons by election:

Edwin Taylor Fleming, LL.D., Chairman  
 Hubert Pearson Kravis, A.B., Secretary  
 Maxwell Winslow Elliott, A.B., LL.B., Assistant Secretary

Arvy Delamer Andrews, B.S., LL.B.

Clarence Allen Aspinwall

James James Briggs, Ph.D., Sc.D., D. Litt., LL.D.

John P. Clark, Bowdoin, B.A., LL.B.

John Henry Cowley

Horace Churchill

William Davis, B.S., B. C. L., LL.B.

Mrs. Joshua Evans, Jr., A.B., LL.D.

Robert Elliot Ford, A.B., LL.M.

Charles Carroll Glover, Jr., A.M., LL.B.

Hubert Greenman, A.M., LL.D., LL.D.

Samuel Hays, A.B., LL.B., LL.D.

John Edgar Hoover, LL.M., LL.D.

Frank Addison Howard, B.E. & M.E., LL.B.

Alfred Henry Lewman, LL.B.

Josephine Mosby McKelvey

John Newman, LL.M.

Frank Worthington Owen, LL.M.

John Henry Alphonse Spring, LL.D.

Walter Rupert Tuckerman, A.B., LL.B.

Alexander Wetmore, Ph.D., Sc.D.

Charles Stanley White, M.D., Sc.D.

loyd Bennett Wilson

## THE UNIVERSITY







## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President and Vice-President of the University ex officio and the following persons by election:

Robert Vedder Fleming, LL.D., *Chairman*  
 Henry Parsons Erwin, A.B., *Secretary*  
 Newell Windom Ellison, A.B., LL.B., *Assistant Secretary*

Avery DeLano Andrews, B.S., LL.B.  
 Clarence Aiken Aspinwall  
 Lyman James Briggs, Ph.D., Sc.D., D.Eng., LL.D.  
 John St. Clair Brookes, Jr., A.M., LL.B.  
 John Henry Cowles, LL.D.  
 Homer Cummings, Ph.B., LL.B., LL.D., L.H.D.  
 \*Watson Davis, B.S. in C.E., C.E.  
 Mrs. Joshua Evans, Jr., A.B., Ed.D.  
 \*Robert Elliott Freer, A.B., LL.M.  
 Charles Carroll Glover, Jr., A.M., LL.B.  
 Gilbert Grosvenor, A.M., LL.D., Litt.D.  
 \*Brooks Hays, A.B., LL.B., LL.D.  
 John Edgar Hoover, LL.M., LL.D.  
 Frank Atherton Howard, B.S. in M.E., LL.B.  
 Alfred Henry Lawson, LL.B.  
 Benjamin Mosby McKelway  
 \*Helen Newman, LL.M.  
 \*Claude Worthington Owen, LL.M.  
 Mrs. Henry Alvah Strong, LL.D.  
 Walter Rupert Tuckerman, A.B., LL.B.  
 Alexander Wetmore, Ph.D., Sc.D.  
 \*Charles Stanley White, M.D., Sc.D.  
 Lloyd Bennett Wilson

\* Nominated by the alumni.



## OFFICERS OF ADMINISTRATION

### THE UNIVERSITY

- Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Ulysses S. Grant, 3d, B.S., *Graduate United States Engineers School*  
*Vice-President*  
Harold Griffith Sutton, M.S., *Director of Admissions*  
Fred Everett Nessel, A.B., *Registrar; Secretary of the Faculties*  
John Russell Mason, B.S. in L.S., A.M., *Librarian; Curator of Art*  
Myrna Pauline Sedgwick, A.B., *Administrative Secretary*  
Henry William Herzog, B.S., *Comptroller*  
Donald David Blanchard, B.C.E., *Business Manager*  
Claud Max Farrington, A.M., *Director of Activities for Men*  
Virginia Randolph Kirkbride, A.M., *Director of Activities for Women*  
Alan Thomas Deibert, A.M., *Adviser to Students from Foreign Countries*  
Mitchell Dreese, Ph.D., *Dean of the Summer Sessions*  
Daniel LeRay Borden, A.M., M.D., *Director of Health Administration*  
Lester Allan Smith, A.M., *Director of Alumni Relations*  
John Rust Busick, A.B., *Director of Public Relations*  
Don Carlos Faith, A.M., *Director of Veterans Education*  
Benjamin Douglass Van Evera, Ph.D., *Coordinator of Scientific Activities*  
Burnice Herman Jarman, A.M., Ed.D., *Special Assistant to the President*

### THE LAW SCHOOL

- Oswald Symister Colclough, B.S., LL.B., LL.D., *Dean of the Law School*  
\_\_\_\_\_, *Assistant Dean of the Law School*  
Louis Harkey Mayo, B.S., LL.B., *Secretary of the Law School*  
Anna Marie Bischoff, A.B., *Recording Secretary in the Law School*  
Ella Cooper Thomas, LL.B., *Assistant Librarian in Charge of the Law Library*  
Bonnie Laird Marsh, A.B., *Secretary to the Dean of the Law School*  
Kaethe Wiegand Wilber, *Secretary in the Law School*



## THE UNIVERSITY

### HISTORY AND ORGANIZATION

The idea of a university in the Capital of the Nation was sponsored by George Washington, who during his public life urged the establishment of such an institution and who in his will left fifty shares of stock in the Potomac (Canal) Company for the endowment of a university to be established in the District of Columbia "to which the youth of fortune and talents from all parts thereof might be sent for the completion of their Education in all the branches of polite literature;—in arts and Sciences,—in acquiring knowledge in the principles of Politics & good Government".

The George Washington University operates under a charter granted by an act of Congress of February 9, 1821, to Columbian College in the District of Columbia. In 1873 the name was changed to "Columbian University" and in 1904 to "The George Washington University".

The University as it is now organized consists of the Junior College, comprising the work of the freshman and sophomore years; Columbian College, the senior college of liberal arts, which offers work leading to the Bachelor's and Master's degrees; the Graduate Council, which offers work leading to the degree of Doctor of Philosophy; the professional schools, which include Medicine, Law, Engineering, Pharmacy, Education, and Government; the Division of University Students; the Division of Special Students; and the Summer Sessions.

### ACADEMIC STATUS

The George Washington University is on the final approved list of the Association of American Universities. This fact not only assures to students the academic standards of this association, but also is important to those who desire to transfer credits from one institution to another.

The University is also accredited by its regional accrediting agency, the Middle States Association of Colleges and Secondary Schools, and is on the approved list of the American Association of University Women.

The Law School is a charter member of the Association of American Law Schools and is approved by the Section of Legal Education and Admissions to the Bar of the American Bar Association.



## LOCATION

The George Washington University is in downtown Washington, four blocks west of the White House and east of the Potomac River with its extensive parkway. Within a few blocks are the buildings housing the offices of many of the departments of the Government, including the Department of State, the Department of the Treasury, the Department of Justice, the Department of the Interior, the Department of Agriculture, the Department of Commerce, and the Department of Labor. Also readily accessible are the Capitol, the Library of Congress, the National Archives, the Supreme Court, and other federal courts.

The University is a new organization consisting of the Junior College, comprising the work of the freshman and sophomore years; Columbian College, the senior college of liberal arts, which offers work leading to the Bachelor's and Master's degrees; the Graduate Council, which offers work leading to the degree of Doctor of Philosophy; the professional schools, which include Medicine, Law, Engineering, Pharmacy, Education, and Government; the Division of University Students; the Division of Special Students; and the Summer Sessions.

## ACADEMIC STATUS

The George Washington University is on the final approved list of the Association of American Universities. This fact not only assures to students the academic standards of this association, but it is important to those who desire to transfer credits from one institution to another. The University is also accredited by its regional accrediting agency, the Middle States Association of Colleges and Secondary Schools, and is on the approved list of the American Association of University Women. The Law School is a charter member of the Association of American Law Schools and is approved by the Section of Legal Education and Admissions to the Bar of the American Bar Association.



## THE LAW SCHOOL

## THE LAW SCHOOL

# THE LAW SCHOOL



## *The George Washington University*

### *Location*

The George Washington University is in downtown Washington, four blocks west of the White House and east of the Potomac River with its extensive parkway. Within a few blocks are the buildings housing the offices of many of the departments of the Government, including the Departments of State, the Department of the Treasury, the Department of Justice, the Department of Commerce, the Department of Education, the Department of Agriculture, and the Department of Labor. The university is also accessible to the Library of Congress, the National Archives, the Supreme Court, and the National Academy of Sciences.

### *THE LAW SCHOOL*



## THE LAW SCHOOL

### THE FACULTY AND STAFF OF INSTRUCTION \*

CLOYD HECK MARVIN, Ph.D., LL.D., *President of the University*  
OSWALD SYMISTER COLCLOUGH, B.S., LL.B., LL.D., *Dean of the Law School*

LOUIS HARKEY MAYO, B.S., LL.B., *Assistant Dean of the Law School*  
*Secretary of the Law School*

### EMERITUS FACULTY

WALTER COLLINS CLEPHANE  
*Professor Emeritus of Law*

LL.B. 1889, LL.M. 1890, LL.D. 1932, The George Washington University. Member 1899-, Committee on Admissions and Grievances, District Court of the United States for the District of Columbia; Member 1906-, Conference of Commissioners on Uniform State Laws. In Practice of Law 1889-, Member of Clephane, Latimer and Hall, Washington (D. C.), 1918-48; Instructor in Moot Court 1899-1900, Professor of Law 1900-36, Professor Emeritus of Law 1936-, The George Washington University.

GILBERT LEWIS HALL  
*Professor Emeritus of Law*

A.B. 1899, Swarthmore College; LL.B. 1918, The George Washington University. Teacher and Division Superintendent of Schools 1901-10, P. I.; with U. S. Indian Service 1912-18; in Practice of Law with Clephane and Latimer, Washington (D. C.) 1918-36; Member 1936-48, Clephane, Latimer and Hall, Washington (D. C.); Lecturer in Law 1920-38, Adjunct Professor of Law 1938-42, Professor Emeritus of Law 1942-, The George Washington University.

JOHN WILMER LATIMER  
*Professor Emeritus of Law*

LL.B. 1897, The George Washington University. In Practice of Law 1906-13; Judge 1913-17, Juvenile Court of the District of Columbia; Member 1918-48, Clephane, Latimer and Hall, Washington (D. C.); Clerk of the Moot Court 1904-7, Instructor in Law 1908-9, Assistant Professor of Law 1910-13, Professor of Law 1913-42, Professor Emeritus of Law 1942-, The George Washington University.

WALTER LEWIS MOLL  
*Professor Emeritus of Law*

A.B. 1898, Concordia College (Ind.); Graduate 1899, Concordia Theological Seminary (St. Louis); LL.B. 1923, Indiana University; S.J.D. 1924, Harvard University. University Scholar 1902-3, University Fellow 1903-4, Johns Hopkins University; Professor of English 1904-9, Professor of Greek 1909-20, Concordia College (Ind.); in Practice of Law with Olds & Thomas, Fort Wayne (Ind.) 1920-22; Instructor in Commercial Law 1920-21, Instructor in Law 1921-23, Indiana University; Professor of Law 1924-43; Professor Emeritus of Law 1943-, The George Washington University.

HECTOR GALLOWAY SPALDING  
*Professor Emeritus of Law*

B.S. 1900, University of Minnesota; LL.B. 1903, S.J.D. 1924, Harvard University. Acting Assistant Professor of Law 1914-15, Stanford University; in Practice of Law with Ritch, Woodford, Bovee and Butcher, New York City; with Cassoday, Butler, Lamb and Foster, Chicago; Assistant Professor of Law 1920-22, Professor of Law 1922-47, Professor Emeritus of Law in Residence 1947-49, Professor Emeritus of Law 1949-, The George Washington University.

\* The President of the University, the Dean and the Assistant Dean of the School, the Registrar of the University, the Director of Admissions of the University, Professors, Adjunct Professors, Associate Professors, and Assistant Professors constitute the Faculty.



## WENDELL PHILLIPS STAFFORD

*Professor Emeritus of Law*

LL.B. 1883, Boston University; A.M. 1901, Dartmouth College; LL.D. 1905, Litt.D. 1929, University of Vermont; LL.D. 1906, Georgetown University; Litt.D. 1910, Middlebury College; Litt.D. 1916, The George Washington University. Judge 1900-1904, Supreme Court of Vermont; Associate Justice 1904-31, Supreme Court of the District of Columbia; Lecturer on Agency 1904-6, Georgetown University; Professor of Law 1908-29, Professor Emeritus of Law 1929-, The George Washington University.

## ACTIVE FACULTY

## JENNINGS BAILEY, JR.

*Professorial Lecturer in Law*

A.B. 1926, Princeton University; LL.B. 1930, The George Washington University. Member, Bailey and Larson 1933-41, Bailey, Stephens and Huettig 1942, 1946-. Principal Attorney, Office of Alien Property 1942-44; Vice-President and General Manager, Gyro Balance Corporation 1945-46. Professorial Lecturer in Law 1949-, The George Washington University.

Subject: Moot Court

## CARVILLE DICKINSON BENSON

*Professor of Law*

A.B. 1920, Johns Hopkins University; LL.B. 1923, S.J.D. 1926, Harvard University. In Practice of Law with Benson, Nock & Rowe, Baltimore (Md.) 1923-25; Assistant Professor of Law, 1926-29, Emory University; Assistant Professor of Law 1929-33, Associate Professor of Law 1933-43, Professor of Law 1943-, The George Washington University.

Subjects: Legal Method and Legal System, Real Property, Conveyances, Wills

## JOHN PATRICK BURKE

*Associate Professor of Law*

A.B. 1940, LL.B. 1941, The George Washington University. Law Clerk, U. S. Court of Appeals for the District of Columbia 1941-42; Assistant U. S. Attorney, District of Columbia 1942-48; Associate Professor of Law 1948-, The George Washington University.

Subjects: Civil Procedure, Legal Method and Legal System, Equity, Federal Jurisdiction

## OSWALD SYMISTER COLCLOUGH

*Professor of Law; Dean of the Law School*

B.S. 1920, United States Naval Academy; LL.B. 1935, The George Washington University; LL.D. 1946, Muhlenberg College; United States Navy 1920-49; Judge Advocate General 1945-48; Professor of Law and Dean of the Law School 1949-, The George Washington University.

Subject: Admiralty

## CHARLES SAGER COLLIER

*Professor of Law*

A.B. 1911, LL.B. 1915, S.J.D. 1932, Harvard University. In Practice of Law with Rounds, Schurman and Dwight (later Hughes, Schurman and Dwight), New York City 1915-16; Member Staff 1918-19, Cornell University Law School; Ezra Ripley Thayer Teaching Fellow 1931-32, Harvard University Law School; Member Faculty, Second Semester Dean of the Law School 1930-31, Professor of Law 1921-, The George Washington University.

Subjects: Constitutional Law, Jurisprudence, Taxation, Constitutional Law Seminar

## ROBERT MCKINNEY COOPER

*Associate Professor of Law*

A.B. 1929, West Virginia University; Ph.M. 1931, University of Wisconsin; J.D. 1934, University of Michigan. Special Assistant to the Attorney General of the United States, 1934-41; The Assistant to the General Counsel of the Federal Communications Commission, 1939-41; Special Counsel to the Bonneville Power Administration, Department of the Interior, 1941-43; Major, Military Government Division, War Department General Staff, U. S. Army 1943-46; Member 1946-47, McFarland and Sellers, Washington (D. C.); Associate Professor of Law 1947-, The George Washington University.

Subjects: Federal Jurisdiction, Criminal Law and Procedure, Agency, Corporations



**GEORGE BOWDOIN CRAIGHILL***Adjunct Professor of Law*

A.B. 1903, University of the South; LL.B. 1906, Georgetown University. Member McKenney, Flannery and Craighill; Lecturer 1914-24, Washington College of Law; Adjunct Professor of Law 1939-, The George Washington University.

Subject: Moot Court

**ROGER ALLEN CUNNINGHAM***Assistant Professor of Law*

B.S. 1942, LL.B. 1948, Harvard University. Navy Department 1942-44; United States Navy 1944-46; in Practice of Law, Boston (Mass.) 1948-49; Teaching Fellow 1949-50, Harvard University; Assistant Professor of Law 1950-, The George Washington University.

Subjects: Real Property, Security Transactions.

**JAMES FORRESTER DAVISON***Professor of Law; Editor-in-Chief of the Law Review*

A.B. 1921, LL.B. 1923, Dalhousie University; LL.M. 1924, S.J.D. 1929, Harvard University. Lecturer in Roman Law and Jurisprudence, 1924-28, Assistant Professor of Roman Law and Jurisprudence 1928-29, University of Toronto; Brandeis Research Fellow 1928-29, Research Fellow 1929-30, Harvard University; Assistant Professor of Law 1930-36, Associate Professor of Law 1936-45, Professor of Law 1945-, The George Washington University; Editor-in-Chief 1946-, *The George Washington Law Review*.

Subjects: Administrative Law, Current Decisions, Public Utilities, Administrative Law Seminar

**JUSTIN LINCOLN EDGERTON***Professorial Lecturer in Law; Clerk of the Moot Court*

A.B. 1929, LL.B. 1931, The George Washington University. In Practice of Law 1933-39, with Frank F. Nesbit, Washington (D. C.); Member 1939-47, Nesbit, Pledger and Edgerton, Washington (D. C.); Member 1947-, Cromelin, Townsend, and Kirkland, Washington (D. C.); Clerk of the Moot Court 1936-, Associate in Law 1936-43, Lecturer in Law 1943-47, Professorial Lecturer in Law 1947-, The George Washington University.

Subject: Moot Court

**WILLIAM LEIGH ELLIS***Lecturer in Law*

A.B. 1929, Hillsdale College; LL.B. 1933, LL.M. 1936, The George Washington University. Special Claims Examiner 1936-38, U. S. General Accounting Office; Attorney 1938-42, Principal Attorney 1942-45, Assistant to the Comptroller General of the United States 1945-; Lecturer in Law 1942-, The George Washington University.

Subject: Legislation

**\*JOHN THEODORE FEY***Associate Professor of Law*

LL.B. 1940 University of Maryland; M.B.A. 1942, Harvard University. United States Marine Corps 1942-46; in Practice of Law, Cumberland, Md., 1946-49; Member of Maryland Legislature 1946-50; Associate Professor of Law 1949-, The George Washington University.

**WILLIAM THOMAS FRYER***Professor of Law*

A.B. 1922, LL.B. 1924, The George Washington University; J.D. 1925, Yale University. In Practice of Law with William Pepper Constable, Baltimore (Md.) 1924-26; Assistant Professor of Law 1926-29, Associate Professor of Law 1929-40, Professor of Law 1940-, The George Washington University.

Subjects: Evidence, Legal Method and Legal System, Personal Property

**WILLIAM LESTER GRIFFIN***Assistant Professor of Law*

A.B. 1941, Western Michigan College; LL.B. 1948, LL.M. 1949, University of Michigan. United States Army 1943-46; in Practice of Law, Kalamazoo, Mich., 1949; Assistant Professor of Law 1950-, The George Washington University.

Subjects: Contracts, Personal Property, Conveyances, Insurance

\* On leave of absence 1950-51.



## CONDER CAYWOOD HENRY

*Adjunct Professor of Law*

A.B. 1915, LL.B. 1920, The George Washington University. Examiner 1915-24, Principal Examiner, U. S. Patent Office 1924-41; Assistant Commissioner of Patents 1941-46; Manager, Washington Patent Department, Radio Corporation of America 1946-; Adjunct Professor of Law 1948-, The George Washington University.

Subject: Patent Moot Court, Patent Office Practice

## PHILIP FIELD HERRICK

*Professorial Lecturer in Law*

A.B. 1929, Williams College; LL.B. 1933, LL.M. 1936, The George Washington University. Assistant Editor, U. S. Law Week 1932-33; Assistant Counsel, National Recovery Administration 1933-35; in Practice of Law with Barbour, Garnett & Pickett, Washington (D. C.), 1935-39; Regional Director, Wage and Hour Division 1939-42; U. S. Attorney for Puerto Rico 1942-48; Member, Appeal Board, Office of Contract Settlement 1948-; Professorial Lecturer in Law 1948-, The George Washington University.

Subject: Moot Court

## JOHN WINGFIELD JACKSON

*Adjunct Professor of Law*

B.S. 1928, University of Pennsylvania; LL.B. 1932, The George Washington University. In Practice of Law 1932-36; Assistant U. S. Attorney for the District of Columbia 1936-41; Member, Jackson, Hannah & Jackson, Washington (D. C.), 1941-; Adjunct Professor of Law 1948-, The George Washington University.

Subject: Moot Court

## JOHN ALEXANDER KENDRICK

*Assistant Clerk of the Moot Court*

A.B. 1942, LL.B. 1943, The George Washington University. In Practice of Law, Washington (D. C.), 1946-; Assistant Clerk of the Moot Court 1948-, The George Washington University.

Subject: Moot Court

## JAMES ROBERT KIRKLAND

*Adjunct Professor of Law*

A.B. 1927, LL.B. 1928, LL.M. 1929, The George Washington University; C.P.A. (Delaware) 1933. Assistant U. S. Attorney for the District of Columbia, 1929-34; Member 1938-49, Cromelin, Townsend, and Kirkland, Washington (D. C.); Judge 1949-, United States District Court for the District of Columbia; Lecturer in Law 1934-45; Adjunct Professor of Law 1945-, The George Washington University.

Subject: Moot Court

## BOLITHA JAMES LAWS

*Adjunct Professor of Law*

LL.B. 1913, LL.M. 1914, Georgetown University. Assistant U. S. Attorney for the District of Columbia 1914-20; Assistant General Counsel, U. S. Shipping Board 1921-22; Member, Cromelin & Laws, Washington (D. C.), 1922-38; Judge 1938-45, Chief Judge 1945-, United States District Court for the District of Columbia; Judge, U. S. Emergency Court of Appeals 1943-; Adjunct Professor of Law 1939-41, Southeastern University; Adjunct Professor of Law 1947-, The George Washington University.

Subject: Moot Court

## LOUIS LOSS

*Professorial Lecturer in Law*

B.S. 1934, University of Pennsylvania; LL.B. 1937, Yale University. Attorney 1937-44, Chief Counsel 1944-48, Division of Trading and Exchanges, Associate General Counsel 1948-, U. S. Securities and Exchange Commission; Lecturer in Law 1941-42, Catholic University of America; Visiting Lecturer in Law 1947-, Yale University; Professorial Lecturer in Law 1949-, The George Washington University.

Subject: S.E.C. Aspects of Corporate Finance

## ELLIOTT DeJARNETTE MARSHALL

*Adjunct Professor of Law*

LL.B. 1930, The George Washington University. In Practice of Law, Front Royal (Va.), 1930-46; Judge, Seventeenth Judicial Circuit of Virginia 1946-; Adjunct Professor of Law 1948-, The George Washington University.

Subject: Moot Court



**LOUIS HARKEY MAYO***Assistant Professor of Law and Secretary of the Law School*

B.S. 1940, United States Naval Academy; LL.B. 1949, University of Virginia; United States Navy 1940-47; Assistant Professor of Law and Secretary of the Law School 1950-; The George Washington University.

Subjects: Agency, Contracts, Criminal Law, Insurance

**JOHN ALBERT MCINTIRE***Professorial Lecturer in Law*A.B. 1928, Wittenberg College; LL.B. 1931, University of Cincinnati; Research Fellow 1935-36, Harvard University Law School; Editor 1937-41, *Municipal Law Journal*; Executive Director 1937-41, National Institute of Municipal Law Officers; Faculty Editor-in-Chief 1932-42, *The George Washington Law Review*; Member of Appeal Board, Office of Contract Settlement 1946-; Instructor in Law 1931-33, Assistant Professor of Law 1933-38, Associate Professor of Law 1938-46, Professorial Lecturer in Law 1946-; The George Washington University.

Subjects: Municipal Corporations, Government Corporations

**LEROY SORENSON MERRIFIELD***Associate Professor of Law*

A.B. 1938, LL.B. 1941, University of Minnesota; M.P.A. 1942, Harvard University. Administration Fellow, Graduate School of Public Administration, Harvard University 1941-42. Attorney, Office of Price Administration 1942. Attorney, Antitrust Division, U.S. Department of Justice 1946-47. Assistant Professor of Law 1947-48, Associate Professor of Law 1948-; Acting Dean of the Law School 1948-49, The George Washington University.

Subjects: Legal Method and Legal System, Torts, Labor Law

**ARTHUR SELWYN MILLER***Assistant Professor of Law*

A.B. 1938, Willamette University; LL.B. 1949, Stanford University; United States Army Air Force 1941-46; Assistant Professor of Law 1950-; The George Washington University.

Subjects: Contracts, Torts, Sales, Public Utilities

**GEORGE EDWARD MONK***Professorial Lecturer in Law*

A.B. 1928, LL.B. 1930, LL.M. 1934, The George Washington University. In Practice of Law with Darr and Darr, 1930-34, with Frank J. Hogan 1934-41, with Hogan &amp; Hartson 1945-; Washington (D. C.); Allied Military Government, Sicily and Italy 1943-45; Lecturer in Law 1947-48, Professorial Lecturer in Law 1948-; The George Washington University.

Subject: Moot Court

**JAMES WARD MORRIS***Adjunct Professor of Law*

A.B. 1912, University of North Carolina. In Practice of Law 1913-33; Special Assistant to the Attorney General 1933-34; Assistant Attorney General of the United States 1935-39; Judge 1939-; United States District Court for the District of Columbia; Adjunct Professor of Law 1939-; The George Washington University.

Subject: Moot Court

**JAMES OLIVER MURDOCK***Professor of Law*

Ph.B. 1916, University of Chicago; LL.B. 1924, Harvard University. Certificate 1923, Academy of International Law at The Hague. In Practice of Law with Cadwallader, Wickersham and Taft 1924-25, New York City; Assistant U. S. Attorney 1925-27, Southern District of N. Y.; Assistant Solicitor and Assistant Legal Adviser 1927-36, U. S. Dept. State; Counsel for United States 1929-33, before International Joint Commission, United States-Canada; Secretary to American delegation 1928-29, International Conference of American States on Conciliation and Arbitration; Counsel for United States 1932, United States-Sweden Arbitration; in Private Practice of Law 1937-46; Chairman, 1935-37, A.B.A. Section of International and Comparative Law; Lecturer 1945 and 1948 sessions, Inter-American Academy of Comparative and International Law, Havana, and member of Curatorium; Lecturer in Law, 1930-43; Adjunct Professor of Law 1943-46, Professor of Law 1946-; The George Washington University.

Subjects: Agency, Comparative Law, International Law, International-Comparative Law Seminar



## FRANK HAMMETT MYERS

*Adjunct Professor of Law*

LL.B. 1923, LL.M. 1924, The George Washington University. In Practice of Law with Norman B. Frost and Frederic N. Towers, Washington (D. C.), 1924-48; Judge, Municipal Court of the District of Columbia 1948-; Adjunct Professor Law 1948-; The George Washington University.

Subject: Moot Court

## ALVIN LEROY NEWMYER

*Adjunct Professor of Law*

LL.B. 1906, The George Washington University. In Practice of Law since 1906; Member Newmyer and Bress. Adjunct Professor of Law 1949-; The George Washington University.

Subject: Moot Court

## SAUL CHESTERFIELD OPPENHEIM

*Professor of Law*

A.B. 1918, A.M. 1920, Columbia University; J.D. 1926, S.J.D. 1929, University of Michigan. Instructor in Economics 1921-26, Teaching and Research Assistant to Dean of Law School 1926-27, University of Michigan; Assistant Professor of Law 1927-30, Associate Professor of Law 1930-40, Acting Dean, winter term 1948, Professor of Law 1940-; The George Washington University; Editor-in-Chief, 1942-46, *The George Washington Law Review*.

Subjects: Unfair Trade Practices, Federal Anti-Trust Laws, Trade Regulation Seminar

## HERMAN ISRAEL ORENTLICHER

*Associate Professor of Law*

A.B. 1933, LL.B. 1936, Harvard University. In Practice of Law 1936-37; Law Clerk, U. S. Court of Appeals for the District of Columbia 1938; Attorney, U. S. Housing Authority 1939-43; Assistant General Counsel, National Housing Agency and Housing and Home Finance Agency 1944-48; Associate Professor of Law 1949-; The George Washington University.

Subjects: Legal Method and Legal System, Negotiable Instruments, Sales, Security Transactions

## CHARLES SYLVANUS RHYNE

*Professorial Lecturer in Law*

LL.B. 1937, The George Washington University. In Practice of Law, Washington (D. C.) 1937-; General Counsel, National Institute of Municipal Law Officers 1938-; Lecturer in Law 1945, American University; Professorial Lecturer in Law 1949-; The George Washington University.

Subject: Aviation Law

## RAYMOND STEVENS SMETHURST

*Professorial Lecturer in Law*

B.S. 1930, Harvard University; LL.B. 1934, The George Washington University. Member of legal staff 1934-41, General Counsel 1941-49, National Association of Manufacturers; in Practice of Law 1949-; Professorial Lecturer in Law 1948-; The George Washington University.

Subject: Labor Law

## FRANCIS GERALD TOYE

*Professorial Lecturer in Law*

B.S. in E.E. 1927, Clarkson College of Technology; LL.B. 1932, The George Washington University. Patent Attorney, General Electric Company 1931-; Professorial Lecturer in Law, 1948-; The George Washington University.

Subject: Substantive Patent Law

## WILLIAM CABELL VAN VLECK

*Professor of Law*

A.B. 1908, LL.B. 1911, LL.D. 1948, The George Washington University; S.J.D. 1921, Harvard University. Member Summer Faculty 1924 and 1929 at University of Michigan, 1927 at Stanford University, 1934 at University of Chicago; one of the Advisers to the Reporter on Conflict of Laws 1926-34, American Law Institute; Research Fellow 1930-31,



Harvard University Law School; Instructor in Law 1912-16, Assistant Professor of Law 1916-19, Professor of Law 1919-, Secretary of the Law School 1912-20, Acting Dean of the Law School 1923-24, Dean of the Law School 1924-49, The George Washington University.

Subjects: Conflict of Laws, Torts

#### DAVID BENSON WEAVER

*Assistant Professor of Law*

A.B. 1943, Ohio Wesleyan University; LL.B. 1948, Western Reserve University. United States Army 1943-45; in Practice of Law 1948-49, Cleveland, Ohio; Assistant Professor of Law 1949-, The George Washington University.

Subjects: Real Property, Equity, Trusts

### COMMITTEES\*

#### THE DEAN'S COUNCIL

Carville Dickinson Benson

Charles Sager Collier

James Forrester Davison

William Thomas Fryer

Leroy Sorenson Merrifield

James Oliver Murdock

Saul Chesterfield Oppenheim

William Cabell Van Vleck

#### COMMITTEE ON ADMISSIONS

Carville Dickinson Benson, *Chairman*

Saul Chesterfield Oppenheim

Harold Griffith Sutton

#### COMMITTEE ON GRADUATE STUDIES

Charles Sager Collier, *Chairman*

James Forrester Davison

James Oliver Murdock

Saul Chesterfield Oppenheim

#### COMMITTEE ON SCHOLARSHIP

Herman Israel Orentlicher, *Chairman*

Carville Dickinson Benson

Leroy Sorenson Merrifield

#### LIBRARY COMMITTEE

James Oliver Murdock, *Chairman*

Robert McKinney Cooper

David Benson Weaver

### GENERAL INFORMATION

#### INTRODUCTORY

The George Washington University Law School, established in 1826, discontinued, and reorganized in 1865, is the oldest law school in the District of Columbia. Its course of instruction is planned to prepare its graduates for the practice of law in any of the states of the United States or in foreign countries, the law of which is based on the Anglo-American legal system. It is also designed to prepare students for public service as lawyers in the Federal Government or the governments of the states. In 1900 the School took part in the organization of the

\* The President of the University and the Dean and the Assistant Dean of the Law School are members ex officio of all committees.



Association of American Law Schools and it has been a member of the Association since that time. The School is approved by the Section of Legal Education and Admissions to the Bar of the American Bar Association.

#### THE LIBRARY

The Law School Library of 27,000 volumes contains the official reports of the decisions of the courts of last resort of all the states prior to the National Reporter System and of fourteen states complete to date; the National Reporter System, complete; the reports of the United States Supreme Court and lower federal courts, and the reports of federal administrative agencies; Shepard's Citations for the units of the Reporter System; the English Reprint and English Law Reports; the United States Statutes; the United States Code, Annotated, and the Federal Code, Annotated; reasonably complete sets of statutes of all of the states; the English statutes; the principal English and American digests and encyclopedias; collections of special reports and annotated cases; and the leading textbooks and legal periodicals.

The Library, which is on the fourth floor of Stockton Hall, is open from 9:00 A.M. to 10:00 P.M. each class day (Saturday, 9:00 A.M. to 5:00 P.M.), and from 2:00 to 6:00 P.M. on Sunday. Books and other materials do not circulate and must be used in the Library.

#### THE LAW REVIEW

*The George Washington Law Review*, published by the University, is edited by the Faculty and students of the Law School. It is devoted exclusively to state and federal public law. The location of the University in the national Capital, where the primary sources of federal public law may be observed in operation, affords an unexcelled opportunity for specialization in this field.

The *Review* is edited by a faculty editor-in-chief, a faculty board of associate editors, a board of departmental advisory editors, and a board of student editors. The student editors are chosen each year on the basis of scholarship.

#### RESEARCH IN PUBLIC LAW

Washington, the capital of the Nation, furnishes unsurpassed advantages for research in the fields of public law. In it are the offices of the major executive departments, the Congress, the Supreme Court of the United States, and four lower federal courts. In the executive departments and among the many independent establishments of the Federal Government there have been estimated to be between seventy-five and one hundred agencies, the activities of which involve the various branches of public law, particularly administrative law. The student of public law can study at first hand the work of these administrative agencies.



He also has available as sources for investigation their records of administrative adjudications.

Research in public law will be conducted under the supervision of members of the Faculty. The purpose of this research is to furnish means for training specialists in public law, either as government lawyers or as lawyers representing individuals or corporations in cases in which the Government is a party, and to assist in the analysis, clarification, formulation, and improvement of public law, substantive and procedural.

Candidates for the graduate degrees in the Law School and seniors who are eligible for the degree of Juris Doctor may pursue this work. Other students may be admitted with the special permission of the professor in charge.

#### COURSE OF STUDY FOR FOREIGN LAWYERS

This course of study is designed to meet the needs of lawyers who come from countries, the legal systems of which are based on the Roman or Civil Law. The objective is to provide an opportunity for such students to acquire an understanding of the fundamentals of the common law so that they may work intelligently with its materials and practitioners. In this program the students are not assigned to special classes but work in association with other students in the regular law subjects. No fixed program of courses is required. Each student's program is adapted to his individual needs. (See *below*, Master of Comparative Law.)

#### THE STUDENT BAR ASSOCIATION

Every student in the Law School is required to be a member of the Student Bar Association. This is organized to enable the student to become better acquainted with problems of the profession, to develop better professional ideals, and to bring about closer contact with members of the profession engaged in active practice of the law.

The work of the Student Bar Association is carried on by various committees and by group and general meetings of a professional and social nature. From time to time lectures are given by outstanding authorities on legal and professional problems.

The Placement Committee of the Student Bar Association cooperates with the University Placement Office in assisting students and graduates of the Law School to find employment.

#### PRACTICE AND PRACTICE COURT

The curriculum is planned to include such training in the fundamentals of practice as is feasible in a law school. Classroom instruction is conducted in the theories of pleading and procedure, trial and appellate



practice, and evidence. This instruction includes grounding in the principles of the new Federal Rules of Civil Procedure. In addition each senior student is required to participate in the work of the Practice or Moot Court. This includes trying a specified number of cases, both as a senior counsel and junior counsel. For students who are planning to practice patent law, a special section of the court is devoted exclusively to the trial of patent cases. Experience in preparing and arguing appellate court cases is also available through the Case Club Competition.

#### ORDER OF THE COIF

The Order of the Coif, a national honor society with chapters in thirty-eight law schools, aims "to foster a spirit of careful study and to mark in a fitting manner those who have attained a high grade of scholarship". The George Washington University Chapter was established in 1926. Members are elected each year from the highest-ranking 10 per cent of the graduating class of the Law School.

#### ADMISSION

##### APPLICATION FOR ADMISSION

An applicant for admission must obtain from the Office of the Director of Admissions an application blank which he must fill out completely and return with the application fee of \$3.00.

A recent photograph, with signature, of the applicant must be attached to the blank.

*To insure prompt action, application should be filed not later than July 1 for the fall term, January 1 for the winter term, and May 1 for the summer term.*

The applicant must request the registrar of each higher institution previously attended to mail directly to the Office of the Director of Admissions the transcript of his record, *even though credits were not earned*, together with an honorable dismissal from the institution last attended. The student must be in good standing as to scholarship and conduct, and must be eligible to return to the previously attended institution in the term for which he seeks admission to The George Washington University.

#### REQUIREMENTS FOR ADMISSION

##### For the Degrees in the Professional Course

*Bachelor of Laws.*—A Bachelor's degree awarded upon completion of a four-year course in an approved college or university is required. All pre-legal work must be of a satisfactory quality and distribution. No student will be admitted who has been in attendance at another law school and who, because of poor scholarship, is on probation or is ineligible.



ble to return to that school. From the applicants fulfilling the basic requirement of a college degree, a selection will be made by the Committee on Admissions.

The Juris Doctor degree is conferred as a recognition of completion with high rank of the full professional course, including experience in research and legal authorship. A student does not register as a candidate for this degree until his last year in the Law School.

#### ADVANCED STANDING

Advanced standing toward the degree of Bachelor of Laws may be granted only for work successfully completed in other law schools which are members of the Association of American Law Schools.

Advanced standing may not be granted for law work already counted toward the Bachelor of Arts or other pre-legal degree.

Students planning to attend summer school sessions at other law schools and desiring to use credits obtained at such schools in their course at this Law School must first have the courses they wish to take approved by the Dean. In no event will credits be recognized in excess of those which might be obtained in a similar period in this School.

Advanced standing toward the degree of Juris Doctor will not be granted.

#### For the Degrees in the Graduate Course

Candidates for graduate degrees must be accepted by the Committee on Graduate Studies.

*Master of Laws.*—A Bachelor of Arts or equivalent degree from an approved college or university and a Bachelor of Laws or equivalent degree from an approved law school are required. Candidates for admission must have attained an average grade on all work done for the Bachelor of Laws degree equivalent to the relative position of a *B* average in the standards of grading at this Law School, except that, in the discretion of the Committee on Graduate Studies, applicants otherwise eligible may be admitted on proof of experience and attainment as an alternative to the showing of a general average of *B* in the formal law school grades.

*Master of Comparative Law.*—The following are required: (1) the successful completion of and graduation from a course in arts, philosophy, letters, or sciences, equivalent to graduation from a gymnasium, lycee, or liceo (junior college); and (2) graduation in law from a recognized foreign university where training was in Civil Law.

*Doctor of Juridical Science.*—The following are required: (1) the degree of Juris Doctor from this Law School; or (2) the degree of Bachelor of Arts from an approved college, the degree of Bachelor of Laws or the equivalent, earned with high rank, from an approved law



school, outstanding capacity for scholarly work in the field of law, and acceptance as a candidate by the Committee on Graduate Studies of the Law School.

#### Unclassified Students

A person eligible for admission to regular standing but not a candidate for a degree may, at the discretion of the Dean, be admitted as an unclassified student.

A person who is in good standing as a candidate for a degree in another approved law school may, at the discretion of the Dean, be admitted as an unclassified student. Work taken by an unclassified student will not be accepted for credit toward a degree at this Law School.

#### REGISTRATION

Before attending classes each student must present himself in person for registration. No student will be registered in the Law School until proper credentials have been filed and approved (see "Admission", above). Registration is for the term or session only.

A late-registration fee of \$5 will be charged each student who is permitted to register after the regular registration days.

Registration may be changed only with the permission of the Dean.

#### FEES AND FINANCIAL REGULATIONS

Application fee, non-refundable.....	\$3.00
Tuition fee, for each credit hour.....	12.00
For the degree of Doctor of Juridical Science:	
For work leading to and including the final examinations.....	360.00
Student Bar Association fee, for each term, or any part thereof except the summer term.....	2.00
Graduation fee.....	20.00
Fee for printing and filing summary of doctoral dissertation.....	50.00
Fee for special examinations, for each subject.....	5.00
Late-registration fee, charged each student who fails to register within the designated period.....	5.00
Service fee for late payment of tuition, see "Payment of Fees".....	1.00
Reinstatement fee, charged each student who is reinstated after being suspended for delinquency in fees.....	5.00

Registration in the University entitles each student to the following University privileges: (1) the issuance of three certified transcripts of record, if and when desired; (2) the services of the Placement Office; (3) the use of University library facilities, except as otherwise designated; (4) gymnasium privileges; (5) admission to all athletic contests, unless otherwise specified; (6) subscription to the *University Hatchet*, the student newspaper; (7) admission to University debates; (8) medical attention and hospital services as described under "Health Administration", pages 26 and 27. These privileges, however, with the exception



of the issuance of transcripts, terminate, and a student is no longer in residence, when he withdraws or is dismissed from the University.

#### PAYMENT OF FEES

All fees are payable at the Office of the Cashier, 725 Twenty-first Street NW. No student is permitted to complete registration or to attend classes until all fees are paid. Fees for each term are due and payable in advance at the time of registration.

Subject to the approval of the Comptroller, a student may sign a contract for term charges, except for fees payable in advance, permitting payments as follows:

*Fall Term.*—One third at the time of registration; one third on November 3; one third on December 4.

*Winter Term.*—One third at the time of registration; one third on March 3; one third on April 3.

A student who fails to meet payments when due but who pays his fees on or before the tenth of the month in which payment is due is charged a service fee of \$1. A student who fails to meet payments by the tenth of the month in which payment is due will be automatically suspended and may not attend classes until he has been officially reinstated and has paid all accrued fees and a reinstatement fee of \$5. A suspended student may not be reinstated for the term after two weeks from the date of suspension. Applications for reinstatement are to be made to the Dean.

#### WITHDRAWALS AND REFUNDS

Application for withdrawal from the University or for change in class schedule must be made in person or in writing to the Dean. Notification to an instructor is not an acceptable notice.

In authorized withdrawals and changes in schedules, financial adjustments will be made as follows:

*Fall Term.*—Withdrawal dated on or before October 31, cancellation of two-thirds of tuition charges; withdrawal dated on or before November 30, cancellation of one-third of tuition charges. No refund or reduction will be allowed on a withdrawal dated subsequent to November 30.

*Winter Term.*—Withdrawal dated on or before February 28, cancellation of two-thirds of tuition charges; withdrawal dated on or before March 31, cancellation of one-third of tuition charges. No refund or reduction will be allowed on a withdrawal dated subsequent to March 31.

In no case will a refund be made of the first third of the total tuition charges. In no case will tuition be reduced or refunded because of non-attendance upon classes.



Payment applies only to the term for which a registration charge is incurred and in no case will this payment be credited to another term.

Authorization to withdraw and certification for work done will not be given a student who has not a clear financial record.

Withdrawal from a course or from the University between October 31 and the end of the fall term and between February 28 and the end of the winter term is permitted only in exceptional cases.

The grade of *F* (to be counted as zero) will be given in a course dropped without the approval of the Dean.

All charges for courses dropped without the approval of the Dean must be met by the student. Reporting the dropping of a course to an instructor does not effect its discontinuance.

#### SCHOLARSHIPS, PRIZES, LOAN FUNDS

*Charles Worthington Dorsey Memorial Scholarship.*—This scholarship, established as a memorial to Charles Worthington Dorsey, Bachelor of Laws '81, Master of Laws '82, is awarded upon the recommendation of the Faculty of the Law School to a needy and promising graduate of Columbian College or other division of the University, with a Bachelor of Arts or other equivalent degree, who has maintained an average of *B* as an undergraduate student and who desires to pursue the study of law as a full-time student. The scholarship covers tuition for the course leading to the first degree from the Law School, Bachelor of Laws or Juris Doctor, provided that the holder maintains an average of *B*. The right is reserved to suspend the benefits of the scholarship for cause at any time. The scholarship is awarded ordinarily once every three years.

*Trustee Scholarships.*—The Board of Trustees of the University has established seven scholarships, each of which provides full tuition for three years in the Law School. Applications will be accepted from graduates of accredited colleges, in the upper fifth of their class, who have demonstrated qualities of leadership in addition to scholastic attainment. These scholarships are valid for work taken in the morning classes of the academic year; they may not be used in the summer terms. To retain a Trustee scholarship, the holder is required to maintain a *B* average each year. Application must be made not later than June 15 preceding the academic year for which the scholarship is to be awarded. Requests for additional information may be made to the Dean of the Law School, The George Washington University, Washington 6, D. C.

All other scholarships are administered by the University Committee on Student Loans and Scholarships.

The following prizes are awarded annually in the Law School:

*Ellsworth Prize.*—The Ellsworth Prize of \$25, established by the late Mr. Fritz von Briesen, is awarded to the student doing the best work in the subject of Patent Law Practice.



*John Bell Larner Prize.*—This prize, established by the bequest of John Bell Larner, consists of a medal which is awarded annually to that member of the graduating class in the Law School who attains the highest average grade in the entire course for the degree of Bachelor of Laws.

*John Ordronaux Prizes.*—These prizes were established in 1909 by the bequest of John Ordronaux. The amount of \$50 is awarded annually to the student in the Law School who has attained the highest average grade in the first-year, full-time course; and \$50 to the student who has attained the highest average grade in the second-year, full-time course.

Through the generosity of friends of the University a number of loan funds are available to students in the Law School. Among them is the Henry Strong-William A. Maury Loan Fund established by the Henry Strong Educational Foundation in memory of Henry Strong and William A. Maury. Application for loans should be made to the Comptroller of the University.

#### REGULATIONS

*Students in the Law School are subject to, and are expected to familiarize themselves with, the general University regulations stated in the University Catalogue.*

#### AMOUNT OF WORK

Students without substantial outside employment may take a program of studies of fourteen hours a week in which the majority of credit hours must be in the morning sections. Students with substantial outside employment must take a limited program of studies not exceeding ten hours a week. Students taking a majority of their classes in the evening may not take more than ten credit hours a week.

#### ATTENDANCE

Regular attendance on classes is required and is necessary for successful work. A student who is deficient in class attendance in any subject may by action of the Faculty be barred from taking the examination in that subject.

#### RESIDENCE REQUIREMENTS

Attendance in the morning classes for the fall and winter terms is counted as residence for an academic year. Attendance in the evening classes for the fall and winter terms is counted as residence for three-fourths of an academic year. A morning student enrolled in a schedule of less than ten hours a week will receive residence credit in the ratio that the hours passed bear to ten. An evening student enrolled in a schedule of less than six hours a week will receive residence credit in the ratio that the hours passed bear to six. Attendance throughout the



Activities for Women before their registrations can be completed. In the women's residence halls, single rooms are \$30 and \$35 a month; double rooms are \$23 and \$28 a month a person. Meals are served at the Student Union. Applications for rooms should be made well in advance. Forms for application, together with detailed information, may be obtained from the Director of Activities for Women.

*Men Students.*—Welling Hall provides double room facilities for 102 students. Rooms rent for \$24 a month a person. Single and double rooms are provided for 203 students in Draper and Bradley Halls. These are temporary dormitories and residence is restricted to veterans of World War II who are enrolled for a minimum of twelve credit hours of academic work in the University. Single rooms are \$17 a month; double rooms are \$13 a month a person. The University maintains a limited number of temporary apartment units for married veteran students and their families subject to the same requirements for tenancy as above. Meals are served at the Student Union.

Application forms for reservations may be obtained from the Director of Activities for Men.

Information concerning private rooming and boarding facilities near the University for women students twenty-one years of age or older and for men students may be obtained at the offices of the Director of Activities for Women and the Director of Activities for Men. The reservation of rooms in private houses must be made by students.

#### STUDENT PLACEMENT OFFICE

The Student Placement Office provides assistance for students and alumni seeking full- and part-time employment. This office maintains a registry of vacancies in the Government and in private industry and refers qualified applicants for appointment. Information is also available on Civil Service examinations.

The prospective student who expects to earn part of his expenses and who does not have a definite appointment to a position should have the means of support for at least one term. The obtaining of a position is contingent on so many factors that immediate employment cannot be assured.

#### HEALTH ADMINISTRATION

The University maintains a health service that is primarily diagnostic in its intent. For medical emergencies and health consultations there is, on the Campus, a Student Health Clinic open from 9:00 A.M. to 5:00 P.M., with physician and nurse in attendance. There is also a rest room for women, with a graduate nurse in charge.

Medical privileges include: (1) the physical examination of every student entering from secondary school; (2) three visits by the University



physician or surgeon, office or residence (District of Columbia), in any one illness, exclusive of a specialist, surgical operation, laboratory, or X-ray examination; (3) hospitalization, including board and nursing in the University Hospital for not more than one week during any twelve month period—the necessity to be determined by the Director of Health Administration. The duration of hospitalization period (maximum, one week) is also to be determined by the Director of Health Administration.

This medical benefit does not apply to illness or disability incurred previous to the University term or prior to payment of tuition fees.

The student is allowed if he so desires, to engage physicians and nurses of his own choice, but when he does so he will be responsible for the fees charged.

Rules: (1) The Director of Health Administration is empowered to limit or deny the medical benefits where, in his discretion, a student has, by his misconduct or breach of the rules of the University, made himself ineligible; (2) the Director of Health Administration has authority to determine the necessity and length of hospitalization; (3) a student who has severed his connection with the University is ineligible for medical benefits; (4) a student intending to train for an athletic team is required to pass a thorough examination at the beginning of each term; (5) the above regulations apply also during the summer term of the University.

The University is not responsible for injuries received in inter-collegiate or intra-mural games, or in any of the activities of the departments of physical education.

#### PLACEMENT SERVICE FOR GRADUATES

The Law School takes a continuing interest in the placement of its graduates. The Dean and Faculty cooperate with the Placement Committee of the Student Bar Association and the University Placement Office in assembling information regarding opportunities for legal positions throughout the country. A register of openings for graduates is maintained based upon information received from alumni of the school, law firms, and government agencies. Students are invited to discuss their placement problems with the appropriate Law School officials and the Placement Committee.

#### THE DEGREES

##### IN THE PROFESSIONAL COURSE

These degrees are Bachelor of Laws (LL.B.) and Juris Doctor (J.D.)

##### REQUIREMENTS FOR THE DEGREE OF BACHELOR OF LAWS

To be recommended for this degree the student must have completed a residence period of not less than three academic years (four years



for evening students) and eighty credit hours with a general average of at least *C*, including the course in Moot Court.

*Combined Degrees of Bachelor of Arts and Bachelor of Laws.\**—A candidate for the combined degrees of Bachelor of Arts and Bachelor of Laws must: (1) complete three years of satisfactory college work; (2) fulfill the residence requirement of at least thirty credit hours of Columbian College, the School of Government, or the School of Education; (3) obtain the approval of the Dean of the college concerned at the time of entering the Law School; (4) complete, without a failure in any subject and with an average grade of not less than middle *C*, the work of the first year in the Law School. The degree of Bachelor of Arts will be conferred at the end of the first year in the Law School, provided the above conditions have been satisfied. The degree of Bachelor of Laws will be conferred upon the satisfactory completion of the law course. Law school work taken at another institution will not satisfy the law requirement for the combined degrees.

*Combined Degrees of Bachelor of Science in Engineering and Bachelor of Laws.\**—For those students who desire to enter the branches of the legal profession in which a background in engineering is necessary a six-year curriculum is offered, leading to the combined degrees of Bachelor of Science in Engineering and Bachelor of Laws. A candidate for the combined degrees must conform to the residence and scholarship requirements of the School of Engineering throughout the period of preparation for the degree in engineering. His scholarship level for the junior and senior years must be acceptable to both the School of Engineering and the Law School. During the junior and senior years he must complete: (1) the required courses in engineering, (2) the 28 credit hours of courses required in the first year of the Law School, and (3) such electives as he needs to satisfy the 140 credit-hour requirement for the degree in engineering. The first year work in the Law School must be completed without a failure in any subject and with an average grade of not less than middle *C*. Upon the satisfactory completion of the senior year, the degree of Bachelor of Science in Engineering will be conferred. The student will then continue his studies in the Law School; upon the satisfactory completion of which the degree of Bachelor of Laws will be conferred.

#### REQUIREMENTS FOR THE DEGREE OF JURIS DOCTOR

This degree is conferred as a recognition of the completion at the George Washington University Law School, with high rank, of the full

\* Registration for work toward the combined degrees is limited to (1) regular students of the University in continuous attendance since the 1947 winter term registration, (2) students who have completed not less than 20 months of continuous service in the armed forces of the United States during World War II and who have been in regular and continuous attendance at this University since the beginning of the 1948 fall term.



professional course including experience in research and legal authorship. To be recommended for this degree the student must have completed: (1) a residence period of not less than three academic years (four years for evening students) in the Law School; (2) eighty credit hours with a general average of at least *B* including the course in Moot Court and one of the following courses: Comparative Law, Jurisprudence, or one of the graduate seminars; and (3) one year of acceptable service on the board of student editors of *The George Washington Law Review*, election to which is subject to regulations laid down by the Faculty. Students taking the combined Arts and Law or Engineering and Law courses are not eligible for this degree.

#### HONORS

The degree of Bachelor of Laws or of Juris Doctor "with distinction" will be awarded students who obtain a general average of *A* in the work for the degree.

#### IN THE GRADUATE COURSE

These degrees are Master of Laws (LL.M.), Master of Comparative Law (M.Comp.L.), and Doctor of Juridical Science (S.J.D.).

##### REQUIREMENTS FOR THE DEGREE OF MASTER OF LAWS

To be recommended for this degree the student must have completed a residence period of not less than two terms. Such residence should normally be continuous. All requirements for the degree must be completed in this Law School and in a period not exceeding two years after registration for work for the degree. The student must have completed with a minimum average of *B* twenty credit hours in courses listed in the law curriculum as graduate subjects (in the 400 group) except that in individual cases third-year subjects may be approved for inclusion in the program of study if not previously taken.

##### REQUIREMENTS FOR THE DEGREE OF MASTER OF COMPARATIVE LAW

To be recommended for this degree the student must have completed a residence period of not less than one academic year. He must have completed satisfactorily twenty-four credit hours in approved subjects in the curriculum of the Law School or of such other departments of the University as the Faculty of the Law School shall approve.

##### REQUIREMENTS FOR THE DEGREE OF DOCTOR OF JURIDICAL SCIENCE

To be recommended for this degree the student must have completed a residence period of not less than one academic year. He must have pursued a course of study and research designated by his consultative



committee and approved by the Committee on Graduate Studies. At the conclusion of his first year of residence, or at such other time as the Committee on Graduate Studies may set, the candidate must pass an oral examination in those fields of study selected by the consultative committee. This examination shall be conducted by the consultative committee and such other members of the Faculty and qualified experts from other research institutions as may be selected by the Committee on Graduate Studies.

Not later than the date specified in the University calendar the candidate must submit to the Dean one typewritten original and two legible and complete carbon copies of his dissertation in its final form. The dissertation must contain a summary of from 2,500 to 3,000 words inserted as an appendix. An additional original typewritten copy of this summary must be submitted for publication. To be acceptable the dissertation must, in the opinion of the examining committee, constitute a substantial contribution to the field of law concerned and be suitable for publication. Additional information will be supplied by the Chairman of the Committee on Graduate Studies.

The summaries of accepted dissertations will be printed in a volume forming a number of the University BULLETIN. The successful candidate for the doctorate is required, before receiving his degree, to pay a fee to cover the expense of printing the summary of his dissertation.



## COURSES OF INSTRUCTION

The courses of instruction listed below are subject to change. The University reserves the right to withdraw any course announced.

The number which precedes the name of a course indicates the term in which that course is offered. An odd number indicates that the course is offered in the fall term; an even number, that it is offered in the winter term; and a double number (e.g., 241-42), that it begins in the fall and continues in the winter term. The letter "x" following an odd course number (e.g., 141x) indicates that the course, normally offered in the fall term, is given in the winter term. The letter "x" following an even course number (e.g., 112x) indicates that the course, normally offered in the winter term, is given in the fall term.

First-year courses are numbered from 101 to 200; second-year courses, from 201 to 300; third-year courses, from 301 to 400; and graduate courses, from 401 to 500.

## COURSES OF INSTRUCTION

The number of hours of credit given for the satisfactory completion of a course is indicated in parentheses after the name of the degree. Thus, a four-hour course giving two hours of credit each term is marked (2-4), and a two-hour course giving two hours of credit is marked (2).

Morning classes begin at 9:10 a.m. Evening classes begin at 5:30 p.m.

### 101 Agency (1)

Cooper, Mervyn, Mayo

Principles of agency in the conduct of business. Covered to be understood, defining and giving solutions. (Also offered 1930 summer term.)

### 1122 Contracts (4)

Griffin, Miller, Mayo

Principles of contracts: offer and acceptance, consideration, terms of contract, formal instruments, rights of third parties, assignments, and discharge, conditions, performance, discharge. Covered to be understood. Morning and evening sessions. (Also offered 1930 summer term.)

### 1222 Criminal Law and Procedure (4)

Cooper, Mayo

Elements of criminal liability; specific crimes; classification of parties to crime; criminal procedure. Covered to be understood. Morning and evening sessions. (Also offered 1930 summer term.)

### 130 Legal Method and Logic

Feyer, Benson, Merrifield,

Stanton

Durkin, Orestich

Technique of study of substantive and procedural law. Examination of legal concepts with training in method and technique of case analysis with modern research in state and federal cases and historical studies of the use of law books and legal writing. Importance of language in law and legal reasoning, both spoken and written as communication and discovery. Interpretation and its affected by the use of precedents.







## COURSES OF INSTRUCTION

The courses of instruction listed below are subject to change. The University reserves the right to withdraw any course announced.

The number which precedes the name of a course indicates the term in which that course is offered. An odd number indicates that the course is offered in the fall term; an even number, that it is offered in the winter term; and a double number (e.g., 241-42), that it begins in the fall and continues in the winter term. The letter "x" following an odd course number (e.g., 141x) indicates that the course, normally offered in the fall term, is given in the winter term. The letter "x" following an even course number (e.g., 112x) indicates that the course, normally offered in the winter term, is given in the fall term.

First-year courses are numbered from 101 to 200; second-year courses, from 201 to 300; third year courses, from 301 to 400; and graduate courses, from 401 to 500.

The number of hours of credit given for the satisfactory completion of a course is indicated in parentheses after the name of the course. Thus, a year course giving two hours of credit each term is marked (2-2), and a term course giving two hours of credit is marked (2).

Morning classes begin at 9:10 a.m. Evening classes begin at 5:50 p.m.

### 102 *Agency* (2)

Cooper, Murdock, Mayo

Problems of agency in the conduct of business. Casebook to be announced. Morning and evening sections. (Also offered 1950 summer term.)

### 112x *Contracts* (4)

Griffin, Miller, Mayo

Promissory obligation: offer and acceptance, consideration, statute of frauds, formal instruments, rights of third parties, assignments, joint obligations, conditions, performance, discharge. Casebook to be announced. Morning and evening sections. (Also offered 1950 summer term.)

### 123x *Criminal Law and Procedure* (4)

Cooper, Mayo

Elements of criminal liability; specific crimes; combinations of persons in crime; criminal procedure. Casebook to be announced. Morning and evening sections. (Also offered 1950 summer term.)

### 129 *Legal Method and Legal System* (4)

Fryer, Benson, Merrifield,  
Burke, Orentlicher

Introduction to study of substantive and procedural law. Examination of basic concepts with training in method and technique of case law, based upon modern records in state and federal cases and individual practice in the use of law books and legal writing. Importance of language in law and legal reasoning, both apart from and in connection with statutory interpretation and as affected by the use of precedents,



under the doctrines of stare decisis, law of the case, and res judicata. Background on development of the English and American legal systems; organization of the judiciary and the bar, stressing enforcement of ethical standards. Fryer and Benson, *Cases on Legal Method*; Fryer and Benson, *Cases on Legal System*. Morning and evening sections. (Also offered 1950 summer term.)

Law 129x—same as Law 129, but offered winter term. Morning and evening sections.

133x *Personal Property* (4)

Fryer, Griffin

Concepts of property, possession, and ownership; legal relations with respect to chattels and documentary intangibles created by gift, sale, pledge, lien, bailment, etc. Fraser, *Cases on Property*, Vol. II, 2d ed.; Fryer, *Readings on Personal Property*, 3d ed. Morning and evening sections. (Also offered 1950 summer term.)

137-38 *Real Property* (2-2)

Benson, Weaver, Cunningham

Real property; introduction; estates, seisin, landlord and tenant; future interests at common law and under the statutes of uses and wills; merger, elementary study of remoteness and powers; adverse possession; prescription; natural rights. Casebook to be announced. Morning and evening sections. (Also offered 1950 summer term.)

141 *Torts* (4)

Van Vleck, Merrifield, Miller

Civil liability for harms to legally protected interests. Thurston and Seavey, *Cases on Torts*. Morning.

Law 141x—same as Law 141, but offered winter term. Evening.

205 *Civil Procedure* (4)

Burke

Function and composition of pleadings, including their relation to proof. Emphasis is upon reforms, as exemplified by modern code provisions and the Federal Rules of Civil Procedure. Clark, *Cases on Pleading and Procedure*, 2d ed. Morning and evening sections.

214x *Constitutional Law* (4)

Collier

Historical introduction; judicial approach and methods; doctrine of the separation of powers; powers of the National Government; the federal system; relation of the state courts and the federal courts. Dodd, *Cases on Constitutional Law*, 3d ed. Morning and evening sections. (Also offered 1950 summer term.)

223x *Domestic Relations* (2)

Marriage, annulment, and divorce; rights of husband and wife; rights of parent and child; infants. (Not offered in 1950-51.)

231 *Equity* (4)

Burke, Weaver

Specific performance of contracts; equitable conversion; statute of frauds; mutuality; conditions; defenses; equitable servitudes; powers of an equity court; effect of decrees, interpleader, bills of peace, cloud on title, rescission and reformation, mistake. Chafee and Simpson, *Cases on Equity*, 2d ed. Morning and evening sections. (Also offered 1950 summer term.)

Law 231x—same as Law 231, but offered winter term. Morning.



233-34 *Evidence* (2-2)

Fryer

Functions of court and jury; witnesses; hearsay, opinion, and circumstantial evidence; proof of authenticity and contents of writings. McCormick, *Cases on Evidence*, 2d ed. Morning and evening sections. (Also offered 1950 summer term.)

246 *Negotiable Instruments* (4)

Orentlicher

Bills of exchange, promissory notes and checks, especially under the Negotiable Instruments Law. Casebook to be announced. Morning and evening sections. (Also offered 1950 summer term.)

248 *Conveyances* (2)

Benson, Griffin

Conveyances, rents, easements, profits, licenses, covenants running with the land, and recording. Kirkwood, *Cases on Conveyances*, 2d ed. Morning and evening sections. (Also offered 1950 summer term.)

251 *Restitution* (4)

Legal remedies for restitution of benefits obtained or conferred by performance of contract, misrepresentation, mistake, and coercion. (Not offered in 1950-51.)

253x *Unfair Trade Practices* (4)

Oppenheim

Unfair trade practices at common law and under state and federal statutes. Trade-marks and trade names, including Trade Mark Act of 1946. Misappropriation. False advertising at common law. Federal Trade Commission jurisdiction over misrepresentation practices. Lotteries and premiums. Disparagement of competitor's goods and business methods. State Fair Trade Acts (resale price maintenance). Price discrimination (State and Federal Robinson-Patman Act). State statutes, prohibiting sales below cost. Inducing breach of contract. Commercial bribery. Miscellaneous business torts constituting unprivileged interferences with advantageous business relations. Oppenheim, *Unfair Trade Practices, Cases, Comments and Materials* (1950). Morning and evening sections.

254 *Wills* (2)

Benson, ———

Formation and revocation of wills; testate and intestate succession. Mechem and Atkinson, *Cases on Wills and Administration*, 3d ed. Morning and evening sections. (Also offered 1950 summer term.)

256 *Sales* (2)

Orentlicher, Miller

Common law, Uniform Sales Act and related statutes. Intention to transfer property interest (specific, unascertained, and future goods); specification and appropriation; cash and conditional sales; C.O.D., F.O.B., and C.I.F. shipments; negotiable bills of lading and warehouse receipts; trust receipts; fraud on seller, retention of possession and bulk sales; remedies of seller and buyer, including suit for price, stoppage in transit, seller's warranties; inspection. Morning and evening sections. (Also offered 1950 summer term.)

258 *Partnerships* (2)

Nature and formation of partnerships, rights in partnership property, relations of partners among themselves, remedies of creditors, dissolution and winding up. Morning and evening sections.



- 303-4 *Administrative Law* (2-2) Davison  
Legislative setting for administrative bodies; judicial control of administrative action, public utilities, taxation, alien laws. Federal Trade Commission, workmen's compensation, etc. Katz, *Cases on Administrative Law*. Morning section (4)—fall term; evening section (2-2)—fall and winter terms.
- 311 *Corporations* (4) Cooper  
Legal requirements as to contributions of capital; powers and rights of corporations, corporate officials, and shareholders. Berle and Warren, *Business Organization—Corporations*. Morning and evening sections. (Also offered 1950 summer term.)
- 315x *Conflict of Laws* (4) Van Vleck  
Study of cases involving foreign elements; principles of jurisdiction and limitations upon its exercise; procedure, torts, workmen's compensation, contracts, property, family law, administration of estates, business associations. Cheatham, Dowling, Goodrich, and Griswold, *Cases on Conflict of Laws*, 2d ed. Morning and evening sections. (Also offered 1950 summer term.)
- 317 *Creditors' Rights* (4)  
Remedies of unsecured creditors: judgments, fraudulent conveyances, creditors' agreements, equity and statutory receiverships, and bankruptcy. The general approach is that of law administration.  
Summer term 1950.
- 321-22 *Current Decisions* (2-2) Davison  
Required of, and limited to, members of the student staff of the *Law Review*. Time to be arranged.
- 324x *Federal Jurisdiction* (2) Cooper, Burke  
Constitutional origins and powers of federal courts; sources of law applicable to them; business and extent of jurisdiction of federal courts. McCormick and Chadbourn, *Cases on Federal Courts*. Morning and evening sections.
- 326x *Insurance* (2) Griffin, Mayo  
The insurance device in life, property, and other risks. Vance, *Cases on Insurance*, 3d ed. Morning and evening sections.
- 327-28 *International Law* (2-2) Murdock  
Customary and treaty rights and duties of states; diplomatic and consular agents; treaty interpretations; nationality laws; international courts; claims procedure; war; neutrality. Hudson, *Cases on International Law*, 2d ed. Morning and evening sections.
- 329-30 *Labor Law* (2-2) Merrifield, Smethurst  
Laws applicable to strikes, picketing, boycotts, etc.; organization and representation of employees; negotiation of collective bargaining contracts; inter-union and intra-union relations; settlement of wage disputes (arbitration, mediation, conciliation). Cases, legislative and administrative materials, readings. Morning section (4)—fall term; evening section (2-2)—fall and winter terms.



332x *Legal Accounting* (2)

A study of elementary accounting principles and techniques, and an introduction to the interpretation of financial statements. Evening.

333-34 *Legislation* (2-2)

Ellis

Justiciable aspects of the legislative process; forms and types of statutes; principles of statutory interpretation, structure, and drafting. Read & McDonald, Cases and Materials on Legislation. Evening. (Also offered 1950 summer term.)

335-36 *Moot Court* (2-2)

Laws, Morris, Craighill, Kirkland, Edgerton, Myers, Marshall, Jackson, Herrick, Monk, Newmyer, Kendrick

To be taken in the senior year. Prerequisite: Law 205 and 233-34. Morning and evening sections.

345 *Substantive Patent Law\** (2)

Toye

Substantive patent law; patentability; revision, use, and enforcement of patents. Evening.

346 *Patent Office Practice\** (2)

Henry

Rules of practice; appeal and interference procedure. Evening.

349-50 *Patent Moot Court\** (2-2)

Henry, Bailey

This course may be elected instead of Law 335-36 to satisfy the Moot Court requirement. Both subjects may not be counted toward a degree. Evening.

351 *Public Utilities* (2)

Davison, Miller

Limits of regulation of businesses affected with public interest; ascertainment of value of property used for the public service and the fixing of adequate rates of return. Welch, Cases on Public Utility Regulation, 3d ed. Evening.

Law 351x—same as Law 351, but offered winter term. Morning.

358 *S.E.C. Aspects of Corporate Finance* (2)

Loss

Federal and state regulation of the distribution of securities, the securities markets, and the corporate structure, and management of public utility and investment companies. Primarily the aspects of corporate finance dealt with by the Securities and Exchange Commission. Evening.

362x *Security Transactions* (4)

Orentlicher, Cunningham

Security interests in real and personal property, their creation, transfer, enforcement, and extinguishment, together with security problems in the fields of suretyship and bankruptcy. Casebook to be announced. Morning and evening sections. (Also offered 1950 summer term.)

\* Patent law students should take Law 345 and Law 349 concurrently in the fall term and Law 346 and Law 350 concurrently in the winter term. Law 349-50 may be taken only by students who are taking or have taken Law 345.



373x *Taxation* (4)

Collier

Introductory course on basic concepts of federal tax system. Attention given to state inheritance and income taxes. Problems of jurisdiction to tax, construction of tax statutes, methods of judicial review of administrative actions in the tax field, modern excise taxes on business concerns. Magill and Maguire, *Cases on Taxation*, 4th ed. Morning.

375-76 *Taxation—Federal* (2-2)

Federal income, gift, and estate taxes, and selected federal tax problems. Evening.

378x *Federal Anti-Trust Laws* (4)

Oppenheim

Restraints of trade at common law. Public policy under Sherman Anti-Trust Act of 1890 and Federal Trade Commission and Clayton Acts, including mergers, consolidations and monopoly. Loose association activities (price-fixing agreements, trade associations, international cartels). Specific practices such as resale price maintenance, delivered price systems, exclusive arrangements and tying devices, trade boycotts. Patents and copyrights under anti-trust laws. Remedies. Oppenheim, *Cases on Federal Anti-Trust Laws*. Evening.

381x *Trusts* (4)

Weaver

Creation, elements, administration, enforcement, termination. Liabilities to and of third persons. Resulting and constructive trusts. Bogert, *Cases on Trusts*, 2d ed. Morning and evening sections. (Also offered 1950 summer term.)

403-4 *Administrative Law Seminar* (2-2)

Davison

Research seminar course in special problems, including the study of specific administrative agencies, federal or state. Time to be arranged.

406 *Aviation Law* (2)

Rhyne

Procedure before Civil Aeronautics Board; legal problems arising in connection with air transportation and airports, international conventions and organizations. Evening.

407x *Admiralty* (2)

Colclough

Federal and state jurisdiction; jurisdiction over waters, craft, contracts, torts, crimes, in equitable matters, etc.; laws applicable to maritime workers and maritime liens. Evening.

415-16 *Comparative Law* (2-2)

Murdock

Historical and comparative study of some of the institutions and principles of the Roman and modern Civil Law (law of South and Central America and most of the Continent of Europe) compared with those of the Common Law; the influence of the former upon the latter. Evening.

421 *Constitutional Law Seminar* (2)

Collier

Research seminar in contemporary problems in constitutional law. Time to be arranged.

430x *International—Comparative Law Seminar* (2)

Murdock

Research seminar in contemporary problems. Time to be arranged.



434 *Interstate Commerce Commission Law and Procedure* (2)

Interstate Commerce Act; the Interstate Commerce Commission; practice and procedure before the Commission. Evening.

435x *Jurisprudence* (4)

Collier

History of jurisprudence; schools of jurists, particularly the nineteenth century schools; sociological jurisprudence; theories of justice; the nature of law; law and morals; law and the state; the scope and subject matter of law, sources and forms of law; the traditional element; analysis of general legal concepts. Hall, Readings in Jurisprudence. Evening.

447 *Municipal Corporations* (2)

McIntire

Municipal corporations; organization, powers, functions, and legal relations of local governmental units. Tooke and McIntire, Cases on Municipal Corporations. Evening. (Also offered 1950 summer term.)

448 *Government Corporations* (2)

McIntire

Federal corporate agencies: organization, powers, functions, and legal relations of functional governmental units separately incorporated. Casebook to be announced. Prerequisite: Law 447. Evening.

451 *Trade Regulation Seminar* (2)

Oppenheim

A research seminar in specific current problems relating to federal anti-trust laws and unfair trade practices. Time to be arranged.



## DEGREES CONFERRED

### BACHELOR OF LAWS

NOVEMBER 11, 1949

Aiken, William David	Wash.	Fox, Dorothy Schwartz	Ohio
Anton, Alfred John	Va.	A.B. 1947, The George Washington University	
A.B. 1948, University of Missouri			
Apgar, Harry Emanuel, Jr.	Va.	Gabletsa, Mary Jane	N.H.
A.B. 1938, Lafayette College		A.B. 1947, Wellesley College	
Archer, Crit Alexander	Miss.	Gemza, Theodore Anthony	Conn.
Avancena, Manuel Claude	D.C.	Gingell, Robert Arthur	Md.
Bathory, Joseph Patrick	Ill.	A.B. 1948, The George Washington University	
Baumgarten, Stephen Harvey	N.Y.	Gordon, Herbert Stephan	Ind.
Beall, John Ninian, Jr.	D.C.	A.B. 1947, Indiana University	
Behun, Joseph Andrew	Ohio	Gottshall, William Holt	D.C.
Bennet, Joseph Campbell, Jr.	Va.	A.B. 1948, Allegheny College	D.C.
Blodgett, Norman Stack	D.C.	Grier, Harold Thomas	W.Va.
B.S. 1941, Worcester Polytechnic Institute		Harper, Richard Howard	S.D.
Bortner, Jeffrey Clair	Pa.	Hart, Seward Lyman	
Bradley, William Orlando	Nev.	A.B. 1938, Yankton College	Mass.
Bumer, Charles Theodore, Jr.	Va.	Haskell, Boris	
A.B. 1947, Cornell University		A.B. 1943, Harvard University	
Burns, Walter William, Jr.	N.Y.	Herrick, Harold Colton III	Mo.
B.E.E. 1942, Cornell University		B.S. in E.E. 1937, B.S. in Eng. Adm. 1938, Washington University	
Carter, Harold Martin	Va.	Houseal, Robert Wright, Jr.	S.C.
B.S. 1942, Roanoke College		B.S. 1943, The Citadel	D.C.
Cope, Harland Burleigh	Kans.	Hoyt, John Gregory	
A.B. 1946, University of Kansas		B.S. 1943, United States Military Academy	
Davis, Sadye Jane	Pa.	Jackson, Philip Grant	Iowa
A.B. 1947, The George Washington University		Jacobson, Odd Thomas	N.D.
DeBlasis, Samuel J.	Ohio	A.B. 1948, The George Washington University	
DeRosa, Edward Francis	Mass.	Jernberg, Dale Leonard	Md.
A.B. 1947, The George Washington University		Jones, Jack Clayton	Okla.
Dibner, Richard Eugene	N.Y.	B.S. in Ch.E. 1939, Oklahoma Agricultural and Mechanical College	
B.M.E. 1943, College of the City of New York		Kellison, John Ray	Va.
Doane, John Emil	Md.	B.S. 1941, University of Richmond	
B.E.E. 1946, The George Washington University		Kelly, Edward Joseph	Pa.
Donelson, Kenneth William	Nebr.	B.S. in Ch.E. 1939, Drexel Institute of Technology	
Downs, Harold Alfred	Va.	Kohloss, Frederick Henry	Md.
Earle, John Howard	D.C.	B.S. in M.E. 1943, University of Maryland	
B.S. 1943, Pennsylvania State College		Kopp, Paul Joseph	Va.
Egley, Paul Wesley	Calif.	A.B. 1932, Lehigh University	
A.B. 1946, University of California at Los Angeles		A.M. 1933, Duke University	
Fair, Robert James	Ind.	Lagomarcino, Paul Donald	Ill.
A.B. 1947, The George Washington University		A.B. 1948, University of Iowa	
Falloon, James Hugh, Jr.	Nebr.	Leary, Robert George	N.Y.
A.B. 1948, The George Washington University		Lindberg, Dale Sheldon	D.C.
Fanget, Louis Alfred	N.J.	A.B. 1943, Bucknell University	
A.B. 1939, Rutgers University*		Lokke, Bernard Molineaux	N.Y.
Feldman, Melvin Martin	D.C.	MacMillan John Howard	Md.
Filippone, Frank Joseph	Md.	Mahar, Daniel John, Jr.	N.Y.
Flanders, Robert Lee	Tex.	Maher, Francis Patrick	Tex.
A.B. 1947, The George Washington University		Maltman, William Leneave	Oreg.
Fleming, Lester Leroy	Pa.	B.S. 1943, University of Oregon	
Forman, Edward	N.Y.	Markowitz, Irving	N.J.
A.B. 1942, College of the City of New York		Mayes, Basil Lamar	Calif.
		McDonough, Russell Charles	Mont.



McQueen, Robert Keith	Iowa	Smith, Thomas Warner	D.C.
A.B. 1944, The George Washington University		A.B. 1948, The George Washington University	
Melvin, Flavell Bryan, Jr.	Va.	Steenerson, Palmer Seymore	D.C.
Mendelsohn, Sydney Henry	Pa.	Steinmeyer, Robert Jay	D.C.
Meyers, Leonard Bernard	D.C.	B.S. in E.E. 1943, University of Nebraska	
Mileur, Alfred Donald	Okla.	Stetson, Rufus Edwin, Jr.	Maine
Miller, Herbert John, Jr.	D.C.	A.B. 1947, Bowdoin College	
A.B. 1948, The George Washington University		Stewart, David Alfred, Jr.	Miss.
Miller, Robert Preston	N.Y.	Stuart, Jasper Edwin	D.C.
B.S. in M.E. 1943, Cornell University		Sussholz, Leonard B.	N.Y.
Moore, Charles Clifton, Jr.	D.C.	A.B. 1948, The George Washington University	
Moore, Waldo Hawthorne	Va.	Tavener, Frank Brennan	Va.
Morgan, Don Earle	Ky.	Taylor, Harry Earl, Jr.	Md.
Morrison, William Llewelyn	N.J.	A.B. 1948, The George Washington University	
B.S. 1939, United States Coast Guard Academy		Thorniley, Robert Miller	D.C.
Nevin, John Irving, Jr.	N.Y.	Threadgill, William James	Miss.
Nichols, Louis N.	D.C.	A.B. 1947, University of Mississippi	
O'Flaherty, Daniel Fairfax	Va.	Townsend, Robert Arnold	Va.
Palmas, Lowell Richard	Va.	A.B. 1943, Harvard University	
Parker, O. B.	Md.	Umstead, Lyman John	Pa.
Pickering, Leonard Leroy	Okla.	A.B. 1948, The George Washington University	
Ratner, Max	D.C.	Vaccaro, Camillo Jimmie, Jr.	D.C.
Reynolds, Gary Stewart	N.Y.	Wagman, Theodore David	Mass.
Riley, Jeremiah Thomas	Mont.	A.B. 1939, A.M. 1940, Boston University	
Roberts, John Summerfield, Jr.	Va.	Walker, Dale Bryan, Jr.	N.M.
B.S. 1941, University of Virginia		Watkins, William Henry	D.C.
Romero, Theodore Robert	Md.	B.S. in E.E. 1940, University of Maryland	
Rosenberg, Seymour Morton	N.Y.	Wayland, Clarence Raymond	Va.
(With distinction)		Whitwell, Sanford McCallum	Pa.
B.E.E. 1940, College of the City of New York		B.S. in M.E. 1944, Cornell University	
Sadur, Marvin Phillip	D.C.	Williams, John Charles	N.D.
A.B. 1947, The George Washington University		Williams, Leonard John II	Md.
Sander, Dora	Md.	Young, Maynard Fling	W.Va.
A.B. 1942, Radcliffe College		B.S. 1937, United States Coast Guard Academy	
Scariot, Angelo John	Va.	Zaskalicky, Julius John	Conn.
A.B. 1948, The George Washington University		B.E. 1942, Yale University	
Sheridan, Philip Henry	D.C.		
B.S. in E.E. 1944, Worcester Polytechnic Institute			

## FEBRUARY 22, 1950

Alawine, Alton Jackson	Miss.	Christopherson, Olaf Warren	Minn.
Arfman, Herbert Edward	Ohio	A.B. 1946, The George Washington University	
Aronson, Sylvan Bernard	D.C.	Church, Abiah Adelbert	Fla.
Atkinson, Charles Fred	Ohio	A.B. 1948, The George Washington University	
A.B. 1948, The George Washington University		Coleman, Carl Shaughnessy	Tenn.
Baldrige, Reid	D.C.	Cook, Rae Timmins	Pa.
A.B. 1948, The George Washington University		B.S.C. 1940, Temple University	
Baskin, William Maxwell	Va.	Cooke, David Ohlmer	N.Y.
Beebe, William Bovell	D.C.	B.S. 1941, M.S. 1942, New York State College for Teachers, Buffalo	
A.B. in Govt. 1946, The George Washington University		Cregger, Hugh Cassell, Jr.	W.Va.
Booton, Robert Edward	Iowa	Crewe, William Penn	Md.
Bramow, Alvin	D.C.	Daniel, William Jeffress	N.C.
Bristol, Ethel Cleo	Colo.	B.Ch.E. 1947, North Carolina State College	
Brown, Herman Cabbage	Del.	DePaul, Joseph Alfred	Md.
A.B. 1948, University of North Carolina		Donnelly, William James, Jr.	Md.
Camby, John Joseph	Pa.	Dougherty, Frank Robert	Md.
B.S. 1941, Carnegie Institute of Technology		A.B. 1946, The George Washington University	
Cameron, William Kimmel	Ohio	Dowell, Earl Simeon	Ill.
A.B. 1948, The George Washington University		B.S. 1947, University of Illinois	



Dwyer, John Joseph A.B. 1948, The George Washington University	D.C.	Lang, Edward Alexander B.S. 1943, University of Florida	Fla.
Ferrill, Grace Cecelia A.B. 1948, The George Washington University	R.I.	Lapham, George Sealy, Jr. Lerner, Theodore Nathan	Ga. D.C.
Frank, Robert Berliner A.B. 1940, University of North Carolina	D.C.	Liken, Robert Lee Lindamood, Joseph Ganam, Jr.	Okla. Md.
Fratt, Nicholas Diller III Fredericks, Ilet Henry Freeman, Robert M. B.E.E. 1944, The College of the City of New York	D.C. Okla. N.Y.	Lucas, Charles William Lynch, William Charles Mann, Donegan A.B. 1947, The George Washington University	Va. Conn. D.C.
Friedman, Sol Furst, Howard Irving A.B. 1942, University of California at Los Angeles	Md. Va.	Martini, Anthony Francis A.B. 1948, The George Washington University	Pa.
Futoran, Josef B.S. 1935, M.S. 1936, The College of the City of New York	Va.	McGinnis, Robert Allen McIntyre, Fred Louis	W.Va. Va.
Gifford, Yale Wesley A.B. 1947, The George Washington University	Kans.	A.B. 1948, The George Washington University	
Goren, Howard J. Graybeal, John Olin B.S. 1943, College of Puget Sound	Md. Wash.	McKeel, Charles Baynor III Milfelt, William Benjamin	N.C. Mo.
Green, Samuel A.B. 1948, The George Washington University	D.C.	Mullin, Eugene Francis, Jr. A.B. 1945, Brown University	D.C.
Gregg, James Calvin Grove, Jesse Barrett, Jr. B.S. 1939, Virginia Polytechnic Institute	Pa. Va.	Musselman, Ashby Milton, Jr. B.S. 1947, University of Maryland	D.C.
Grubb, Stephen F. Hamby, John Gordon B.S. in M.E. 1947, University of Kentucky	Nebr. Ky.	Newmyer, Armand Nolte, Carl Robert, Jr.	D.C. D.C.
Healey, Alan John A.B. 1948, The George Washington University	D.C.	A.B. 1948, College of William and Mary	
Helzer, Charles William B.S. in E.E. 1945, Georgia Institute of Technology	Fla.	O'Brian, Edward Day B.S. 1947, Iowa State College	Iowa
Hillman, Jack Allan Holbrook, Ollie James Isom, Clifford Clinton B.S. 1939, Kansas State College	D.C. Ky. Ill.	Oda, Robert Yasuo Osann, Robert B.Ch.E. 1943, Rensselaer Polytechnic Institute	Hawaii Va.
Jackson, Thomas Lester Johnson, Norton Steele Jones, Cullen Bryant, Jr. A.B. 1948, The George Washington University	Md. Md. Ind.	Parrish, John Poindexter Paulson, Norman Clarence Pfeiffer, Frederick Thompson	Va. S.D. D.C.
Jordan, George Sanford Julien, Carl Alden B.S. 1945, University of Washington M.S. 1947, University of Notre Dame	D.C. Oreg.	A.B. 1947, University of North Carolina	
Kahn, Fritz Reiner A.B. 1948, The George Washington University	Md.	Pollack, Leonard Herman Poston, Raymond Lee, Jr.	Pa. Va.
Kayson, David Kerr, Thomas Moore, Jr. A.B. 1940, Lafayette College	D.C. N.J.	Reagan, James Edwin Rhine, Mary Elizabeth	D.C. Pa.
Kitts, Willard Frederick A.B. 1942, Amherst College	Mass.	Richards, William Robert Ridpath, Robert Vance	Md. Ind.
Kokulis, Paul Nicholas B.S. 1944, Worcester Polytechnic Institute	N.H.	Rommel, Wilfred Herzer B.S. 1937, North Dakota State College	D.C.
Korn, Seymour Krist, Fred George	N.Y.	Rosenthal, Alan Henry Sakai, Hiroshi	D.C. Hawaii
Kytte, Stuart Frederick A.B. 1948, The George Washington University	N.Y. Md.	Schneider, Walter Henry B.S. 1943, Virginia Polytechnic Institute	N.J.
		Shapiro, David Sharp, Daniel DeWitt	N.Y. Mass.
		B.S. 1939, Northeastern University	
		Sheff, Irving Hyman A.B. 1948, The George Washington University	Mass.
		Smith, Dudley Burcham B.S. 1945, California Institute of Technology	Oreg.
		Steiner, Paul Llewyn	D.C.
		Stewart, Francis John A.B. 1948, West Virginia University	Pa.
		Stiles, Meredith Newcomb, Jr. A.B. 1946, Amherst College	N.J.
		Sukalo, Charles B.S. in Ch.E. 1944, Newark College of Engineering	N.J.
		Sullivan, Arthur Victor, Jr.	D.C.
		Tait, Reid Clifford	Md.



Taylor, Edward Rathbun	D.C.	Wicker, George Stanley	Ga.
A.B. 1947, Lafayette College		A.B. 1939, Emory University	
Thurmond, Cornelius Brooks, Jr.	Ga.	Widman, Charles Louis	D.C.
Travaglini, Vincent D.	Va.	Wing, Robert Claude	Maine
Turkal, Donal Lloyd	Md.	B.S. 1935, United States Naval Academy	
Vinciguerra, John Vincent	Ohio	M.B.A. 1939, Harvard University	
A.B. 1939, University of Akron		Withers, John Lewis	N.C.
Vitale, Michael Joseph	N.J.	B.S. 1940, Davidson College	
Weaver, Gilbert Earl, Jr.	N.C.	A.M. 1941, University of North Carolina	
A.B. 1948, Lenoir-Rhyne College		Wolk, Reuben	Calif.
Weed, Norman Broadwell	D.C.	B.S. 1938, University of Maryland	
A.B. 1938, Stanford University		Yokley, William Ross, Jr.	Pa.
Whitaker, Edward Stephen	Tenn.		
A.B. 1942, King College			
White, Robert Lynn	W.Va.		
B.S. 1947, Marietta College			

## MAY 31, 1950

Atkinson, Ethel Kathleen	Ohio	Cherwek, Stanley	Mass.
B.S. 1928, Carnegie Institute of Technology		A.B. 1949, The George Washington University	
A.M. 1940, Western Reserve University		Cheslow, Ernest	N.Y.
Ayers, Theodore Aley	Va.	B.C.E. 1939, College of the City of New York	
A.B. 1941, University of Virginia		Chudzik, John Stephen	N.Y.
Bain, Cody	Okla.	A.B. 1948, The George Washington University	
Barish, Benjamin J.	Mich.	Cochran, Robert Reid	N.J.
B.S. in E.E. 1946, Illinois Institute of Technology		B.S. in C.E. 1947, Tufts College	
Barnes, Duard Roof	Ariz.	Cohen, Saul Benjamin	D.C.
A.B. 1949, The George Washington University		A.B. 1949, The George Washington University	
Bauknight, William Cooper, Jr.	Va.	Compton, Ross Harrington	Va.
B.S. 1942, University of Virginia		B.S. 1947, Massachusetts Institute of Technology	
Becker, Martin Stanley	D.C.	Crammond, James Darwin	D.C.
Beckwith, Thomas Larson, Jr.	N.J.	Crane, Esther Sibyl	N.M.
Bell, Edward Leroy	Ohio	(With distinction)	
B.S. 1946, Illinois Institute of Technology		A.B. 1949, The George Washington University	
Bell, Jay Richard	Utah	Curry, Stowers Leigh, Jr.	Va.
Benson, Jacque Maruie	Utah	A.B. 1948, The George Washington University	
B.S. 1947, Utah State University		Day, Ernest Herbert	Ohio
Biram, James Raymond	Conn.	A.B. 1941, Oberlin College	
B.E. 1948, Yale University		Dickson, James Meek	S.C.
Blake, George Francis	Md.	Dixon, William Joseph	Md.
Blake, Martin	D.C.	Dowell, Arthur Edward III	D.C.
B.S. 1947, Northeastern University		B.S. in E.E. 1943, Princeton University	
Blatchford, Walter Larned	Tex.	Downing, Leslie Burgess	Va.
B.S. 1933, United States Naval Academy		B.S. 1920, United States Military Academy	
Bock, Eugene William	N.Y.	Dumaine, Gabriel Romain	Va.
B.S. 1948, Texas Christian University		A.B. 1948, The George Washington University	
Brantley, James Cranford	D.C.	Elliott, William Homer, Jr.	N.J.
B.B.A. 1947, University of Georgia		A.B. 1940, Wesleyan University	
Brewster, Mary Sanford	Va.	Engelthaler, Fred Edward	Ill.
Brill, Edward Pope, Jr.	Md.	B.S. 1938, Illinois Institute of Technology	
Bundock, John Paul David, Jr.	D.C.	Favarella, Fiodie Paul	Pa.
B.S. in E.E. 1948, Tufts College		Foley, James Kieran	N.Y.
Bush, Joseph Francis	D.C.	B.S. 1945, United States Merchant Marine Academy	
B.S. 1947, Mount St. Mary's College		French, William Thomas	Fla.
Button, Dale Leon	Kans.	B.C.E. 1943, University of Florida	
Caldwell, Randolph Foster, Jr.	Tenn.	Fried, Alfred Sigmund	Md.
Cantwell, William James	N.Y.		
A.B. 1948, The George Washington University			
Carter, Sidney	N.Y.		
B.C.E. 1942, College of the City of New York			
Caruso, Lawrence Robert	N.J.		
A.B. 1949, The George Washington University			



Galane, Morton Robert	N.Y.	Loomis, Jerome Lathrop	Wis.
B.E.E. 1946, College of the City of New York		Ed.B. 1935, Wisconsin State Teachers College, Whitewater	
Ginsberg, Albert	Md.	A.M. 1942, Northwestern University	Philippines
Goeway, Bruce Anderson	Mass.	Lopez, Cornelio Orial	
A.B. 1942, Colgate University		A.B. 1927, University of Iowa	Md.
Goldstein, Benjamin	N.Y.	Mack, John Halford	
B.S.S. 1931, M.B.A. 1932, College of the City of New York		B.S. 1937, University of New Hampshire	
Gourley, Roy George	Pa.	Manning, Charles Madison	Ky.
B.S. 1948, University of Alabama		A.B. 1947, Union College	
Gray, Daniel William	Mass.	Marks, Solomon	Md.
Hall, Joseph Earl	W.Va.	B.S. 1937, College of the City of New York	
A.B. 1949, Marshall College		Martin, Marshall Alden, Jr.	Va.
Hallberg, Ernest Van, Jr.	Fla.	Martin, Watt Nicholas	Va.
A.B. 1942, University of Florida		Misey, Edward Gabriel	Wis.
Hancock, Quinlan Harris	Va.	A.B. 1942, A.M. 1945, University of Wisconsin	
Handy, John Bruce, Jr.	D.C.	Moore, Jack Martin	Md.
A.B. 1943, Washington and Lee University		A.B. 1949, The George Washington University	
Harmon, Robert Brooks	Md.	Muller, Raymond Carl	Md.
B.S. 1941, University of Maryland		B.S. 1949, University of Maryland	
Hattis, Russell Elmer	Ill.	Mullinnix, Allen Prather	D.C.
B.S. in E.E. 1947, University of Illinois		B.S. 1919, United States Naval Academy	
Hendershott, Susan Jane	Md.	M.S. 1926, Yale University	Ohio
Hiers, Jasper Theodore III	N.C.	Murrish, Everett Clark	
Hill, William Bethel, Jr.	Va.	A.B. 1947, Harvard University	Va.
B.S.C. 1941, University of Virginia		Norvell, Robert Joseph	
Holford, Bond Larry	Md.	B.S. 1947, University of Wisconsin	Nev.
Hollingsworth, Gerald Eugene	Md.	Novakovich, Nada	D.C.
Houston, James Knox	D.C.	O'Dea, Thomas Emmett	Pa.
Hutchinson, Eileen Marie	Ohio	Odza, Hugh Malcolm	
Janson, Lars Edward	Va.	A.B. 1947, Pennsylvania State College	Vt.
A.B. 1948, The George Washington University		Otterman, Harvey Boyd, Jr.	
Johnson, Leighton Eugene	Minn.	A.B. 1949, The George Washington University	
A.B. 1948, The George Washington University		Patton, Arthur Gordon	Va.
Johnson, Richard Carl	Md.	A.B. 1946, Yale University	
Jones, Darrell Lloyd	Tex.	Pearson, Beverly Stocking	Md.
Kaiser, Stanley Mortimer	D.C.	A.B. 1940, Vassar College	
Kalb, Vernon Fredric	Ky.	Peisner, Arthur A.	Md.
B.S. 1947, University of Kentucky		Pendergrass, John Mullard	Va.
Kappler, Charles Theodore	D.C.	A.B. 1945, Kalamazoo College	
A.B. 1942, Yale University		M.P.A. 1946, Wayne University	Tex.
Kelley, Frank William	Mich.	Phillips, Gordon Allison	
Kemer, Frank Conrad	Md.	Ph.B. 1947, University of Chicago	D.C.
A.B. 1949, The George Washington University		Rath, Robert Karl	Ohio
Kirshbaum, Amiel	D.C.	Rich, Francis Earl	Miss.
B.S. 1937, University of Maryland		B.S. 1941, United States Naval Academy	
Klavan, Stanley	D.C.	Ries, Carl Gilbert	Wyo.
Klostermann, Wolfgang Ekart	Ill.	B.S. 1947, University of Wyoming	
Kolodny, Joseph George	D.C.	Robbins, Glenn Kingsland	Miss.
A.B. 1935, Harvard University		B.S. 1947, Washington University	Pa.
Kornblatt, Julius	N.Y.	Rodgers, James Edwin	Tex.
Koutoulakos, Louis	Va.	Romero, Mario Savedra	
A.B. 1949, The George Washington University		B.S. 1939, National University of Mexico	Fla.
Kozlowski, Joseph John	Md.	Rood, George Henry	
Lainof, Robert Ivan	Ill.	A.B. 1939, University of Florida	S.D.
B.S. 1939, North Carolina State College	Va.	Roubideaux, Ramon Arthur	D.C.
Lavine, Irvin Arthur		Rowe, Willis Case	
B.A.E. 1947, Catholic University of America		A.B. 1949, The George Washington University	
LeVine, Carl Ralph	Mich.	Rutledge, John	Va.
B.S.E. 1936, M.S.E. 1938, University of Michigan		Saffitz, Abraham Alan	N.Y.
Levy, Donald	Md.	A.B. 1936, Cornell University	
B.S. 1947, University of Maryland			



Schappert, Joseph Matthew, Jr. A.B. 1948, Queens College	N.Y.	Steinberger, Hugh Marion B.S. 1941, University of Virginia	D.C.
Scholtz, Edward Karl	Nebr.	Stephens, William Theodore	Md.
Schonberger, Eugene	Va.	Sullivan, Thomas Vincent	N.Y.
Schultz, Herman David	N.Y.	A.B. 1942, New York University	
Sheeran, James Joseph	N.J.	Tafuya, Ben	Md.
Sheridan, Philip Regis A.B. 1948, The George Washington University	Pa.	Tashjian, Lee Charles A.B. 1949, The George Washington University	Md.
Shoemaker, William Robert	Ala.	Ussery, Harry McRae	Va.
Shoup, Wilson Elliott	Va.	Vance, John Thomas	Md.
A.B. 1937, Indiana University		A.B. 1947, University of Montana	
Silverman, Aaron	D.C.	Varoutsos, Paul George	Va.
A.B. 1948, The George Washington University		Waldron, Richard Vernell	Ill.
Skinner, Henry Ross	Wyo.	Ed.B. 1938, Southern Illinois University	
A.B. 1947, University of Wyoming		Woodling, Francis Albert	Md.
Smith, Chester Horace	Nev.	A.B. 1946, The George Washington University	
Stehl, Edward III	Va.	Yarnoff, Leroy Mills	D.C.
A.B. in Govt. 1949, The George Washington University		Young, Jack Martin	Ohio
Steinbauer, Walter Henry, Jr. B.S. 1947, Emory and Henry College	D.C.	B.S. 1943, Case Institute of Technology	

## JURIS DOCTOR

## NOVEMBER 11, 1949

Cavanagh, John Edward A.B. 1941, University of Oregon	Oreg.	Seidel, Arthur Harris B.S. 1942, College of the City of New York	N.Y.
Dixon, Rod Paul	Utah	A.M. 1943, University of Michigan	
A.B. 1947, University of Utah		Stewart, Rodney Ward	D.C.
Earle, William Kehr	Pa.	A.B. 1933, Carleton College	
B.S. 1940, United States Coast Guard Academy		A.M. 1934, University of Chicago	
Minnick, John Bradley	Va.	Ph.D. 1938, Harvard University	
A.B. 1935, Amherst College		Woodbury, Wallace Richards	Utah
Netterville, Victor Samuel	Ind.	A.B. 1947, University of Utah	
A.B. 1947, Indiana University			
Pettigrew, Wilbur B.	Va.		
B.S. 1930, State Teachers College, Maryville, Mo.			
M.S. 1939, Iowa State University			

## FEBRUARY 22, 1950

Millman, Max Roland B.S. 1937, The College of the City of New York	N.Y.	Siegel, Abraham B.S. 1940, The College of the City of New York	Calif.
--	------	--	--------

## MAY 31, 1950

Breslauer, Ruth Cooper (With distinction) B.S. 1945, The George Washington University	D.C.	Reid, James Sharp A.B. 1937, Cornell University	D.C.
Donnelly, Henry Joseph, Jr. B.S. 1928, University of Pennsylvania	Va.	Reifin, Martin Gardner (With distinction)	N.Y.
Goldsborough, George Joseph, Jr. B.S. 1947, United States Military Academy	Md.	B.M.E. 1945, College of the City of New York	
Patty, Clarence Ralph, Jr. B.S. 1940, University of Tennessee	Tenn.	Sweitzer, Henry Becker B.S. 1941, United States Naval Academy	Pa.

## MASTER OF LAWS

## NOVEMBER 11, 1949

Bailey, William Alfred LL.B. 1948, The George Washington University	Tex.	Boroughs, Lewis Edward LL.B. 1948, The George Washington University	N.C.
---	------	---	------



Brain, William Herbert	Ill.	Manning, Glenn Franklin	Ala.
B.S. 1944, University of Illinois		LL.B. 1948, University of Alabama	
LL.B. 1948, The George Washington University		Page, Helen Bell	D.C.
Chang, Richard I-Feng	D.C.	LL.B. 1948, The George Washington University	
A.B. 1943, St. John's University		Pickens, John Kenneth	D.C.
LL.B. 1949, DePaul University		A.B. 1939, The George Washington University	
Embrey, Lemuel Jackson	Va.	LL.B. 1942, Harvard University	Md.
A.B. 1937, LL.B. 1949, The George Washington University		Roberts, Richard Mansfield	
Guimond, Joseph Alexandre	Ohio	LL.B. 1948, The George Washington University	
A.B. 1931, LL.B. 1933, Western Reserve University		Russell, William David	Mo.
Hudgins, John Jefferson	D.C.	A.B. 1936, LL.B. 1938, University of Missouri	
LL.B. 1949, The George Washington University		Sylvester, Malcolm Duncan	La.
Hudson, Dugald Walker	S.C.	B.S. 1925, United States Naval Academy	
B.S. 1940, Presbyterian College		J.D. 1939, The George Washington University	
LL.B. 1949, The George Washington University			
Kait, Harry Carl	N.J.		
B.S. 1928, Temple University			
LL.B. 1938, Rutgers University			

## FEBRUARY 22, 1950

Choulas, James George	N.Y.	McLaurin, Lillian Catherine	Miss.
LL.B. 1949, The George Washington University		A.B. 1937, LL.B. 1939, Vanderbilt University	
Cotter, Francis Aloysius	Md.	B.S. 1941, George Peabody College for Teachers	
LL.B. 1949, The George Washington University		Munves, William	Va.
Gardner, Edith Rose	Va.	A.B. 1932, College of the City of New York	
A.B. 1943, University of California at Los Angeles		J.D. 1936, New York University	
LL.B. 1948, The George Washington University		Narron, Wiley	D.C.
Hobbes, Alan Buxton	Fla.	LL.B. 1943, The George Washington University	
A.B. 1939, Washington and Lee University		Preston, Edwin Page	Tenn.
LL.B. 1947, The George Washington University		LL.B. 1948, Washington and Lee University	
Kardy, Leonard Thomas	Md.	Reynolds, Chester Forrest	W.Va.
LL.B. 1949, The George Washington University		LL.B. 1949, The George Washington University	
Littman, Simon	D.C.	Whitesel, James Warren	D.C.
LL.B. 1931, University of Maryland		B.S. 1943, Wake Forest College	
McGrail, Edward Hugh	N.J.	J.D. 1948, The George Washington University	
A.B. 1943, St. Peter's College			
LL.B. 1948, Georgetown University			

## MASTER OF COMPARATIVE LAW

## NOVEMBER 11, 1949

Beyen, Karel Herman	Netherlands	Del Russo, Alessandra Luini	Italy
Juris Candidatus 1943, University of Utrecht		Doctor Litterarum 1939, State University, Milan	
Juris Doctorandus 1948, University of Amsterdam		Doctor Jurisprudence 1943, State University, Pavia	

## FEBRUARY 22, 1950

Bourdon, Edouard	Belgium	Fisher, John Hanus	Md.
Docteur en Droit 1938, Liege University		J.D. 1931, University of Prague	



## MAY 31, 1950

Altman, Gerald	Mass.	Leary, Robert George	D.C.
B.S. 1943, LL.B. 1949, Boston University		LL.B. 1949, The George Washington University	
Bartimo, Frank Antonio	Mass.	Levin Joseph	Md.
A.B. 1941, Clark University		LL.B. 1949, The George Washington University	
LL.B. 1944, The George Washington University		Long, George Edward	Md.
Blessing, Melvin Junior	Va.	LL.B. 1949, The George Washington University	
B.C.E. 1940, Cornell University		Moore, Charles Clifton, Jr.	Va.
LL.B. 1949, Georgetown University		LL.B. 1949, The George Washington University	
Bronaugh, Alfred Taylor	D.C.	Nowlin, Joe Franklin	Ark.
B.S. 1939, J.D. 1949, The George Washington University		LL.B. 1949, University of Arkansas	
Buldain, Frank Javier	Tex.	Palmer, Lowell Richard	Va.
A.B. 1933, LL.B. 1935, Baylor University		LL.B. 1949, The George Washington University	
Coggins, John Wesley	N.C.	Pellerzi, Leo Maurice	D.C.
LL.B. 1940, The George Washington University		LL.B. 1949, The George Washington University	
Dreos, George Calvin	D.C.	Pettigrew, Wilbur B.	Iowa
B.S. 1945, University of Alabama		B.S. 1934, Missouri State Teachers College	
LL.B. 1948, The George Washington University		M.S. 1939, State University of Iowa	
Earle, John Howard	D.C.	J.D. 1949, The George Washington University	
B.S. 1943, Pennsylvania State College		Richwine, Francis Kost	Pa.
LL.B. 1949, The George Washington University		B.S. 1941, Pennsylvania State College	
Ehrlich, Bernard Herbert	D.C.	LL.B. 1949, The George Washington University	
A.B. 1947, LL.B. 1949, The George Washington University		Rousar, Edward Everett	Okla.
Galinis, Victor John	Mass.	LL.B. 1949, The George Washington University	
LL.B. 1941, Georgetown University		Stanley, Earl R.	Ohio
Gilmore, Frank Peter	Ill.	B.S. 1943, Kent State University	
B.S. 1927, M.D. 1929, Loyola University		LL.B. 1949, The George Washington University	
LL.B. 1949, The George Washington University		Steenerson, Palmer Seymore	D.C.
Gorman, Vincent Andrew	N.Y.	LL.B. 1949, The George Washington University	
LL.B. 1948, St. John's University		Streinz, Clare Julia	Pa.
Gravatte, Robert Howerton, Jr.	D.C.	LL.B. 1949, The George Washington University	
A.B. 1943, LL.B. 1947, University of Virginia		Sumney, Ara Long	W.Va.
Halen, John Thomas	Va.	LL.B. 1940, University of Richmond	
A.B. 1949, Brooklyn College		A.B. 1946, West Virginia University	
LL.B. 1949, St. Johns University		Swartz, Christian LeFevre	Va.
Harper, Richard Howard	W.Va.	B.S. 1937, University of Pennsylvania	
LL.B. 1949, The George Washington University		LL.B. 1946, Temple University	
Hart, Seward Lyman	S.D.	Triviz, Edward Ernest	N.M.
A.B. 1938, Yankton College		A.B. 1942, New Mexico College of Agriculture and Mechanic Arts	
LL.B. 1949, The George Washington University		LL.B. 1949, The George Washington University	
Hodges, Willard Jefferson, Jr.	Ala.	Turrou, Edward Arnold	Tex.
LL.B. 1937, University of Alabama		A.B. 1942, LL.B. 1948, The George Washington University	
Houseal, Robert Wright, Jr.	S.C.	Watkins, William Henry	D.C.
B.S. 1943, The Citadel		B.S. 1940, University of Maryland	
LL.B. 1949, The George Washington University		LL.B. 1949, The George Washington University	
Kaplan, Harold Irving	Mass.	Webster, John Mark	Va.
B.S. 1942, University of Maine		B.S. 1942, University of Minnesota	
LL.B. 1948, Harvard University		LL.B. 1947, The George Washington University	
Kiechel, Walter, Jr.	Nebr.	Wyatt, John Walton	Fla.
A.B. 1941, University of Nebraska		B.S. 1938, State Teachers College, Troy, Ala.	
LL.B. 1949, Yale University		LL.B. 1947, University of Florida	
Kuchler, Ralph Rudolph	Utah		
A.B. 1948, LL.B. 1949, The George Washington University			
Kunz, Karl Michael	R.I.		
Ph.B. 1941, Providence College			
LL.B. 1947, Georgetown University			



# STUDENTS REGISTERED

SUMMER TERM 1949

FALL AND WINTER TERMS 1949-50

A			
Abbey, Vincent H. D.	D.C.	Altshuler, Oscar	N.Y.
A.B. 1947, University of Washington		Alvey, Ernest Brandon	Va.
Abbott, Frank LeRoy	Mo.	LL.B. 1949, The George Washington	
A.B. 1939, Central College, Mo.		University	
Abelson, Allan Joseph	Md.	Amidon, Robert Horace	D.C.
B.S. 1949, Temple University		Amster, Morton	N.J.
Abrahamson, Joseph Labe	Va.	B.S. in E.E. 1948, Rutgers Uni-	
Abramowitz, Charles	N.Y.	versity	
A.B. 1948, LL.B. 1949, The George		Anderson, Earl Edward	W.Va.
Washington University		B.S. 1940, A.M. 1949, West	
Abrams, Ida Ulman	D.C.	Virginia University	
A.B. 1949, Duke University		Anderson, Edward James	N.Y.
Abramson, Milton E.	N.Y.	B.S. 1947, Siena College	
B.B.A. 1942, College of the City of		Anderson, Robert Reynolds, Jr.	Va.
New York		B.S. 1933, University of Richmond	
Ackerly, Robert Louis	N.Y.	Anderson, William Lawrence	Md.
Ackerman, Harry	N.Y.	B.C.E. 1925, Ohio State University	
Adams, Robert Louis	Va.	Anderson, William Walter	Ill.
A.B. 1949, Washington and Lee		Andrews, Paul Jacob	Pa.
University		A.B. 1938, Amherst College	
Addison, Francis Girault	D.C.	LL.B. 1942, Dickinson College	
B.S. 1947, Washington and Lee		Andrews, William Taylor	D.C.
University		B.E.E. 1944, The George Washington	
Adler, Irving	Va.	University	
B.S. 1939, New York University		LL.B. 1949, Albany Law School	D.C.
Agayoff, Theodore Daniel	Conn.	Angle, William Ward	
A.B. 1949, The George Washington		Annis, Robert James	Mich.
University		Ansher, Harold	N.Y.
Ahern, Frank Leo	D.C.	A.B. 1939, Brooklyn College	
B.S. in M.E. 1944, Cornell University		Ansher, Norton	N.Y.
Aiken, William David	Wash.	B.E.E. 1949, The George Washington	
Alawine, Alton Jackson	Miss.	University	Va.
Albamonte, Eugene	D.C.	Anton, Alfred John	
Albertson, Harold Francis	Va.	A.B. 1948, University of Missouri	Va.
A.B. 1936, Earlham College		Apgar, Harry Emanuel, Jr.	
Aldhizer, Carthon Evans	Va.	A.B. 1938, Lafayette College	Wis.
Alduk, Thomas Joseph	D.C.	App, Oliver Leo	D.C.
Ale, Charles William	Va.	Appelstein, David	
A.B. 1943, Hampden-Sydney College		A.B. 1949, The George Washington	
LL.B. 1949, Washington and Lee		University	
University		Archer, Crit Alexander	Miss.
Allen, Edward Carlton, Jr.	D.C.	Arfman, Herbert Edward	Ohio
B.S. 1938, United States Coast Guard		Armore, Jack E.	N.Y.
Academy		B.S. 1936, Brooklyn College	
Allen, Edward Clayton	Md.	Arnold, Thomas Oren	Tex.
A.B. 1940, Gettysburg College		B.S. in E.E. 1944, LL.B. 1949,	
Allen, Meredith Ernest	Okla.	University of Texas	D.C.
A.B. 1937, LL.B. 1937, University		Aronson, Sylvan Bernard	Oreg.
of Oklahoma		Asbury, Glenn Cameron	
Alsager, Leslie Eugene	Minn.	B.S. 1946, University of Denver	
B.M.E. 1949, University of		M.S. 1947, Syracuse University	Va.
Minnesota		Ashford, Robert Sidney	
Alster, Caliste Jay	Ill.	A.B. 1948, Princeton University	
B.S. 1948, Massachusetts Institute of		Ashley, Robert Frederic	Tex.
Technology		Asin, Hy	N.Y.
Altman, Gerald	Mass.	Atkinson, Charles Fred	Ohio
B.S. 1943, LL.B. 1949, Boston		A.B. 1948, The George Washington	
University		University	
Altmann, Andrew Taylor	Md.	Atkinson, Ethel Kathleen	Ohio
B.S. 1941, University of Maryland		B.S. 1928, Carnegie Institute of	
LL.B. 1948, The George Wash-		Technology	
ington University		A.M. 1940, Western Reserve	
		University	



Ault, John Miller	D.C.	Barnes, John Lockard	Md.
Austin, Hampton Lambert	Va.	A.B. 1948, Western Maryland College	
Auten, Howard Leonidas	D.C.	Barnhart, Arthur Gooding	D.C.
Avancena, Manual Claude	D.C.	Bartimo, Frank Antonio	Va.
Axtell, George Clifton, Jr.	Va.	A.B. 1941, Clark University	
Ayers, Kingdrel Navarre	D.C.	LL.B. 1944, The George Washington University	
B.S. 1941, United States Coast Guard Academy		Barton, Fred Hubert	D.C.
Ayers, Theodore Alely	Va.	Baskin, Alan Irwin	Pa.
A.B. 1941, University of Virginia		A.B. 1949, Pennsylvania State College	
B		Baskin, James Dollar	Tex.
Bachrach, Morton W.	Va.	B.S. 1946, United States Naval Academy	
B.S. 1947, Roanoke College		Baskin, William Maxwell	D.C.
Bacon, James Everett, Jr.	Md.	Bastian, David Charles	D.C.
Bagby, Mary Lawton	Md.	A.B. 1948, University of Maryland	
A.B. 1945, The George Washington University		Bathory, Joseph Patrick	Ill.
Baglio, Joseph Michael	N.Y.	Battin, James Franklin	Minn.
Bailey, Kenneth Alexander	N.Y.	Bauknight, William Cooper, Jr.	D.C.
Bain, Cody	Okla.	B.S. in Comm. 1942, University of Virginia	
Bains, George Washington	Va.	Baum, Norman	Va.
B.S. 1925, United States Naval Academy		A.B. 1948, Bucknell University	
LL.B. 1931, University of Alabama		Baumgarten, Stephen Harvey	N.Y.
Baird, Donald Benson	Pa.	Baylinson, Richard Norman	N.J.
A.B. 1948, University of Pittsburgh		Beall, John Ninian, Jr.	Va.
Bakeman, Robert Atherton	Md.	Beardmore, Walter Harvey	Md.
A.B. 1932, Middlebury College		Beasley, Jess Lee	Va.
Baker, Carl Wilfred	Ohio	A.B. 1936, Phillips University	
B.S. 1948, Ohio State University		M.S. 1941, University of Oklahoma	
Baker, Glwynn Robinson	Ohio	Beatty, Alta Mae	D.C.
B.S. in Ch.E. 1948, Purdue University		Bechtold, Royal Arthur	Ind.
Baker, Raymond Harold	D.C.	B.S. 1948, Indiana University	
A.B. 1940, Western Michigan College		Beck, John Albert	Mo.
M.B.A. 1949, University of Texas		A.B. 1949, University of Tulsa	
Baker, Rex Harding	Ill.	Becker, Martin Stanley	D.C.
A.B. 1948, University of California at Los Angeles		Beckler, David Zender	Va.
Baker, Robert Clifford	Wash.	B.S. 1939, University of Rochester	
A.B. 1948, University of Minnesota		LL.B. 1943, The George Washington University	
Balavage, Albert Alphonsus	D.C.	Beckwith, Thomas Larson, Jr.	N.J.
B.S. 1947, University of Pennsylvania		Beebe, John Elliott, Jr.	Kans.
Baldridge, Reid	D.C.	A.B. 1937, Municipal University of Wichita	
A.B. 1948, The George Washington University		Beebe, William Bovell	D.C.
Balfour, Don Arthur	D.C.	A.B. 1946, The George Washington University	
A.B. 1945, The George Washington University		Behun, Joseph Andrew	Ohio
Bandy, Alva Harlan	Kans.	Beimford, Louis A.	Ohio
B.S. 1947, Kansas State College		B.S. 1948, Miami University	
LL.B. 1949, Washburn Municipal University of Topeka		Belew, Raymond Fulton	D.C.
Barber, Alvin Thomas	D.C.	Belk, Harry Clinton	S.C.
B.S. 1931, Susquehanna University		A.B. 1943, Wofford College	
Barber, Frederick Willard	Calif.	Bell, Edward Leroy	Ohio
A.B. 1941, The George Washington University		B.S. in M.E. 1946, Illinois Institute of Technology	
Bargar, John Raymond	D.C.	Bell, Jay Richard	Utah
Barger, Herman H.	Mass.	Bellamah, Frederick Joseph	D.C.
A.B. 1937, Harvard University		A.B. 1949, The George Washington University	
Barish, Benjamin J.	Mich.	Belt, Osborn S.	Md.
B.S. in E.E. 1946, Illinois Institute of Technology		A.B. 1943, Allegheny College	
Barnard, Richard Paul	Va.	M.S. 1947, Dartmouth College	
B.S. in M.E. 1947, University of Michigan		Bennet, Joseph Campbell, Jr.	Va.
Barnes, Duard Roof	Ariz.	Bennett, Anne Rutherford	Va.
A.B. 1949, The George Washington University		A.B. 1939, Goucher College	
		Bennett, William Batchelder	Va.
		B.S. 1935, University of New Hampshire	
		A.M. 1936, Ph.D. 1941, Louisiana State University	



Benson, Floyd W. A.B. 1933, Stanford University	Calif.	Blessing, Melvin J. B.C.E. 1940, Cornell University	N.Y.
Benson, Jacque Marie B.S. 1947, University of Utah	Utah	LL.B. 1949, Georgetown University	Nebr.
Berg, Louella Miller	D.C.	Bloch, Robert Oakleigh A.B. 1949, The George Washington University	Mo.
Berg, Martin Donald	D.C.	Block, Harold Stanley B.S. in E.E. 1944, University of Missouri	D.C.
Berger, Arthur Joseph	Pa.	Blodgett, Norman Stack B.S. 1941, Worcester Polytechnic Institute	Md.
A.B. 1948, Bucknell University	D.C.	Bloom, Jerome Philip B.S. in M.E. 1947, Wayne University	D.C.
Bergman, William Hunter	Md.	Blum, Daniel B.M.E. 1944, College of the City of New York	Ohio
Bergmann, Robert T. B.S. in E.E. 1943, University of Missouri	N.Y.	Blumenfeld, Isadore David B.S. in E.E. 1949, Case Institute of Technology	N.Y.
Berman, Hyman A.B. 1949, The George Washington University	D.C.	Blumenkopf, Norman A.B. 1941, Brooklyn College	D.C.
Bernard, Eugene Louis A.B. 1949, Ohio State University	Ill.	Blute, William Augustine Bochenek, Benjamin Herman	Md.
Berry, Jack Aloysius	N.Y.	B.S. 1947, University of Maryland	N.Y.
Berry, Seymour	Nev.	Bock, Eugene William B.S. 1949, Texas Christian University	Kans.
Berson, Harold Ralph A.B. 1949, The George Washington University	N.C.	Bock, Robert Leroy A.B. 1948, University of Kansas	N.Y.
Best, Lee James A.B. 1919, Duke University	Va.	Bogen, William A.B. 1949, The George Washington University	N.Y.
Beuchert, George Henry, Jr. B.S. in B.A. 1946, LL.B. 1948, Georgetown University	Pa.	Bogorad, Abraham B.S. 1941, College of the City of New York	Pa.
Bevelacqua, Charles Angelo B.S. in M.E. 1946, University of Pittsburgh	Md.	Bohan, John Patrick Bohan, Joseph James	Md.
Beyen, Karel Herman B.S. 1943, University of Utrecht LL.M. 1948, University of Amsterdam	D.C.	Bollinger, Howard Moore B. S. 1943, M. S. 1947, Massachusetts Institute of Technology	N.J.
Biegel, Mark M. A.B. 1944, The George Washington University	Md.	M.B.A. 1948, Harvard University	D.C.
Bigelow, Robert Orville B.S. 1949, University of Maryland	Conn.	Bookman, Irving A.B. 1940, New York University	Iowa
Biram, James Raymond B.E.E. 1948, Yale University	Md.	Boorman, Robert Henry Booton, Robert Edward	Wis.
Birdsell, John Edmund A.B. 1945, LL.B. 1947, The George Washington University	Ky.	Borcherding, Earl William A.B. 1949, The George Washington University	Va.
Biskin, Allen Raymond B.S. 1950, University of Maryland	Minn.	Borel, Paul Arnold B.S. in C.E. 1934, University of Kansas	N.Y.
Bizot, Hyland B.S. in M.E. 1934, University of Kentucky	Md.	M.B.A. 1938, Harvard University A.M. 1944, Columbia University	N.C.
Bjorklund, Otto Edward Black, George LaDow B.S. in E.E. 1946, University of South Carolina	Ohio	Bornstein, Irwin Seymour Boroughs, Lewis Edward	Pa.
Black, Richard McKeon Blackwell, Albert Turner A.B. 1948, University of Maryland	Md.	LL.B. 1948, The George Washington University	D.C.
Bladergroen, Robert John A.B. 1942, LL.B. 1947, Cornell University	N.Y.	Bortner, Jeffrey Clair Bottone, Patrick Francis	Belgium
Blake, George Francis Blake, Martin B.S. 1947, Northeastern University	Md.	B.S. 1947, Seton Hall College Docteur en Droit 1938, University of Liege	Wash.
Blakemore, James Russell B.S. 1934, University of Illinois	D.C.	Bower, Robert Sharon A.B. 1929, Stanford University	N.Y.
Blanchard, Charles Fuller A.B. 1947, LL.B. 1949, Duke University	Mich.	Bowers, Arthur Lewis B.E.E. 1948, College of the City of New York	Va.
Blanz, James McCauley A.B. 1949, Bowdoin College	N.C.	Bowers, Edwin Ralph B.S. 1948, Virginia Military Institute	Md.
Blatchford, Walter Larned B.S. 1933, United States Naval Academy	D.C.	Bowman, Robert Tchanen A.B. 1948, Miami University	



Bowron, Francis Lloyd	Wyo.	Brown, Laurence Ray	Colo.
Boyer, John Alton	Md.	B.S. in Eng. 1949, The George Washington University	
A.B. 1948, The George Washington University		Brown, Martin John	Ark.
Boylan, Robert Thomas	Pa.	B.S. in Ch.E. 1948, Purdue University	
B.S. 1947, University of Pennsylvania		Brunauer, Sandor	D.C.
Boyles, John Harrison	D.C.	Dr. Jur. 1928, University of Pecs, Hungary	
A.B. 1944, St. Bonaventure College		Brunson, Woodrow W.	Ala.
LL.B. 1948, Georgetown University		A.B. 1933, Spring Hill College	
Braddock, Harry Elton	N.J.	LL.B. 1937, Georgetown University	
B.S. 1945, United States Naval Academy		Bruskin, Leo	Conn.
Bradley, William Orlando	Nev.	A.B. 1949, The George Washington University	
Bradway, Malcolm Strode	Ind.	Bryan, James Edward	Md.
B.S. in M.E. 1948, Purdue University		B.S. 1945, M.S. 1946, Virginia Polytechnic Institute	
Brady, George Moore, Jr.	Md.	Buchanan, Katherine Donnell	Ark.
A.B. 1947, Johns Hopkins University		A.B. 1936, Tulane University	
Bramow, A. Stanley	D.C.	Buckley, Robert Baldwin	Va.
B.S. 1946, Virginia Polytechnic Institute		B.S. in E.E. 1949, The George Washington University	
Bramow, Alvin	D.C.	Buldain, Frank Javier	Tex.
Brantley, James Cranford	D.C.	A.B. 1933, LL.B. 1935, Baylor University	
B.B.A. 1947, University of Georgia		Bumer, Charles Theodore, Jr.	Va.
Braskamp, Anne Bernice	D.C.	A.B. 1947, Cornell University	
A.B. 1949, Wilson College		Bundock, John Paul David, Jr.	D.C.
Brastow, Jerome Duryea	D.C.	B.S. in E.E. 1948, Tufts College	
A.B. 1949, The George Washington University		Bunten, Elizabeth	D.C.
Braswell, Hiram Eugene	N.C.	A.B. 1930, The George Washington University	
A.B. 1948, University of North Carolina		Burk, Paul William, Jr.	D.C.
Breier, Aaron I.	D.C.	Burns, Walter William, Jr.	N.Y.
B.S. 1931, M.S. 1934, College of the City of New York		B.E.E. 1942, Cornell University	
Brennan, Edward William	Pa.	Burr, LaVern Harold	Va.
A.B. 1943, St. Francis College		A.B. 1947, Butler University	
M.B.A. 1948, University of Pennsylvania		Burroughs, George Aloysius	D.C.
Brennan, Francis Xavier	N.Y.	Burrow, Rhea Morgan	Tenn.
Breslau, Ruth Cooper	D.C.	A.B. 1937, Transylvania College	
B.S. 1945, The George Washington University		LL.B. 1950, Georgetown University	
Breslaw, Joseph	D.C.	Burton, Lockwood Duquesne	D.C.
B.S. 1946, University of Notre Dame		Bush, Joseph Francis	D.C.
Brewster, Mary Sandford	Va.	B.S. 1947, Mount St. Mary's College	
Brill, Edward Pope, Jr.	Md.	Bushnell, Richard	Ind.
Brinitzer, Peter Helmuth	N.Y.	B.S. in M.E. 1948, Purdue University	
A.B. 1949, Syracuse University		Button, Dale Leon	Kans.
Brinks, Henry Luke	Ill.		
A.B. 1948, Wheaton College, Ill.		C	
Bristol, Ethel Cleo	Colo.	Caldwell, Randolph Foster, Jr.	Tenn.
Britton, George Henderson	N.J.	Caldwell, Wilfred Gene	Ind.
A.B. 1949, Miami University		B.S. in E.E. 1945, M.S. in E.E. 1948, Purdue University	
Brock, Xavier Martin, Jr.	N.C.	Callegary, Claude Leon	Md.
Brody, Alfred Lawrence	Mass.	Calrow, Paul Emerson	Va.
B.S. in E.E. 1946, Northeastern University		B.S. 1944, University of Minnesota	
Bronaugh, Alfred Taylor	D.C.	Camarot, Henry Jules	D.C.
B.S. in E.E. 1939, J.D. 1949, The George Washington University		Camby, John Joseph	Pa.
Bronaugh, John Reeder	D.C.	B.S. 1941, Carnegie Institute of Technology	
B.S. in M.E. 1947, Virginia Polytechnic Institute		Cameron, John William	D.C.
Brooks, James Fogelson	W.Va.	A.B. 1949, The George Washington University	
A.B. 1949, Marshall College		Cameron, William Kimmel	Ohio
Brooks, William I.	N.Y.	A.B. 1948, The George Washington University	
B.S. 1933, Brooklyn College		Campana, John Paul	D.C.
Brown, Benjamin Franklin	D.C.	B.S. 1943, Mansfield State Teachers College, Pa.	
Brown, Donald Arthur	D.C.	Campbell, Barbara	Va.
Brown, Herman Cabbage	Del.		
A.B. 1948, University of North Carolina			



Campbell, Charles Edward	Va.	Chazin, Sheldon	N.Y.
B.E.E. 1949, The George Washington University		B.B.A. 1949, College of the City of New York	
Campbell, Francis Walter	R.I.	Chennault, Joe Young	La.
B.S. in Ed. 1946, Rhode Island College of Education		Cherwek, Stanley	Mass.
Campbell, James Joseph	D.C.	A.B. 1949, The George Washington University	
Campbell, Paul Calvin	Md.	Cheslow, Ernest	N.Y.
A.B. 1938, M.S. in Ed. 1939, Pennsylvania State College		B.S. in Ch.E. 1939, College of the City of New York	
Campbell, Robert Alexander, Jr.	N.J.	Chin, Robert	D.C.
Campo, Victor Charles	D.C.	A.B. 1949, The George Washington University	
A.B. 1948, The George Washington University		Chittenden, Joe Daniel, Jr.	D.C.
Cantini, Humbert John, Jr.	N.C.	A.B. 1949, The George Washington University	
Cantor, Bernard J.	N.Y.	Choate, Mary Elizabeth	Okla.
B.M.E. 1949, Cornell University		B.S. 1930, M.S. 1941, Oklahoma Agricultural and Mechanical College	
Cantwell, William James	N.Y.		N.Y.
A.B. 1948, The George Washington University		Choulas, James George	
Carey, Patrick Francis	N.H.	LL.B. 1949, The George Washington University	
Carlson, Randolph Adair	D.C.		D.C.
A.B. 1948, Brown University		Christeller, Norman Lee	Mont.
Carlson, Walter Loren	Nebr.	A.B. 1943, Oberlin College	
B.S. 1949, University of Nebraska		Christensen, Earl	Minn.
Carne, William Benton	Tenn.	A.B. 1943, Montana State University	
B.S. 1943, University of Tennessee		Christopherson, Olaf Warren	
Carpenter, Patrick Louis	Md.	A.B. 1946, The George Washington University	
Carr, Robert Addison	Calif.		N.Y.
B.S. 1932, Ohio State University		Chudzik, John Stephen	
Carroll, Norman Sellman	Va.	A.B. 1948, The George Washington University	
A.B. 1949, The George Washington University		Church, Abiah Adelbert	Fla.
Carroll, Will Herman	Ala.	A.B. 1948, The George Washington University	
B.S. 1946, LL.B. 1948, University of Alabama			Va.
Carter, Harold Martin	Va.	Church, Frederick Lewis, Jr.	
B.S. 1942, Roanoke College		B.S. in B.A. 1943, American University	
Carter, Sidney	N.Y.		N.J.
B.S. in Ch.E. 1942, College of the City of New York		Cifelli, Armand	D.C.
Carulli, Leonard	Mass.	Clark, Allen Culling	
A.B. 1949, The George Washington University		A.B. 1949, The George Washington University	
Caruso, Lawrence Robert	N.J.	Clark, George Henry, Jr.	D.C.
A.B. 1949, The George Washington University		B.S. 1949, The George Washington University	
Cary, George Lee, Jr.	Md.	Clark, James Leonard	Ga.
A.B. 1949, University of Maryland		Clark, John Raymond	N.J.
Case, Matalée Talbutt	Md.	A.B. 1943, Rutgers University	
A.B. 1927, A.M. 1929, Ph.D. 1931, The George Washington University		LL.B. 1949, Harvard University	
Casey, John Brendan	D.C.	Clark, Raymond Dykes	D.C.
Casey, John Joseph	Pa.	B.S. 1948, University of California at Los Angeles	
Caslin, James Michael	D.C.		Ga.
Cassin, Vernon	Mich.	Clark, William Bert	Md.
A.B. 1941, Wayne University		Clark, William Giddings	Va.
Cavallo, Anthony Joseph	D.C.	Clarke, James Brent	Md.
A.B. 1937, Lafayette College		Clarke, John Harrison Oliver	
Cavan, William Eugene	N.C.	B.M.E. 1943, LL.B. 1948, University of Virginia	
A.B. 1948, Guilford College		Clayton, Christopher Sudlow	D.C.
Cavanagh, John Edward	Oreg.	Coates, Gladys Elizabeth	Tex.
A.B. 1941, University of Oregon		A.B. 1944, University of Texas	
Cerf, Fred Robert	N.Y.	Coburn, William Hoffman	Mont.
A.B. 1949, New York University		Cochran, Dean Farrington	Va.
Cerra, Arthur Joseph	N.Y.	Cochran, Robert Reid	N.J.
Chang, Richard I-Feng	N.Y.	B.S. in Ch.E. 1944, Tufts College	
A.B. 1943, St. John's University, Shanghai		Cochran, Robert Thomas, Jr.	Va.
Chapman, Frank Morris	D.C.	B.S. 1948, Georgetown University	
Charles Frederick Isaac	Pa.	Coen, Benjamin Wiggins	W.Va.
Chastain, Billy Fred	D.C.	A.B. 1949, Marietta College	
		Coggins, John Wesley	Va.
		LL.B. 1940, The George Washington University	



Cohen, Donald Sidney	D.C.	Costa, Jasper Silva	D.C.
B.S. 1947, University of Maryland		A.B. 1927, Brown University	
Cohen, Richard Edward	D.C.	LL.B. 1931, Cornell University	
Cohen, Saul Benjamin	D.C.	LL.M. 1948, Georgetown University	
A.B. 1949, The George Washington University		Costello, Elmer Price	W.Va.
Coker, Joseph Daniel	S.C.	A.B. 1949, Marshall College	
A.B. 1935, A.M. 1937, Ph.D. 1949, The George Washington University		Cotter, Francis Aloysius	Md.
Cole, Walter Harvey, Jr.	D.C.	LL.B. 1949, The George Washington University	
B.C.E. 1949, The George Washington University		Cotter, John	Mass.
Coleman, Carl Shaughnessy	Va.	A.B. 1924, Yale University	
Collier, Edwin	N.J.	Coulombe, Raymond Armond	D.C.
A.B. 1948, The George Washington University		B.M.E. 1948, The George Washington University	
Collins, Henry Dalton	Va.	Cowles, Truman David, Jr.	Conn.
B.S. 1940, College of Notre Dame of Maryland		B.S. 1944, Franklin and Marshall College	
Colmer, James Henry	D.C.	LL.B. 1949, Catholic University of America	
Colvin, Harold Bradford	D.C.	Cox, Herman Elmer	S.C.
Compton, Ross Harrington	Va.	Coyne, Joseph Patrick	D.C.
B.S. 1947, Massachusetts Institute of Technology		A.B. 1939, St. Ambrose College	
Conboy, John Anthony	Md.	Cozyk, John	W.Va.
B.S. 1948, University of Scranton		Cozzi, Aldo John	N.Y.
Condon, Theron Elwin	Md.	B.S. 1946, B.M.E. 1947, Stevens Institute of Technology	
B.S. in M.E. 1934, Northeastern University		Craddock, William Wood	Md.
Connerton, Joseph John	Pa.	Cragoe, John Henry	D.C.
B.E.E. 1949, Catholic University of America		Crammond, James Darwin	Md.
Connerton, Robert Joseph	Pa.	Crandell, William Palmer	N.M.
B.S. in B.A. 1949, University of Scranton		Crane, Esther Sibyl	
Connor, James Robert	W.Va.	A.B. 1949, The George Washington University	
A.B. 1939, Fairmont State College		Cratty, Thomas Dodds	Pa.
Conrad, Paul Rawson	Kans.	Creesy, William Martin	Md.
B.S. 1949, University of Kansas		A.B. 1949, Duke University	
Cook, Rae Constance	Pa.	Cregger, Hugh Cassell, Jr.	Va.
B.S. 1940, Temple University		Crewe, William Penn	Md.
Cooke, David Ohlmer	N.Y.	Cronin, G.S. Homer	Mass.
B.S. 1941, Buffalo State Teachers College		Ph.B. 1937, Holy Cross College	
M.S. 1942, New York State Teachers College, Albany		Crooks, Robert Gladden	Mass.
Cooley, Edwin Remick	Kans.	B.S. 1949, M.S. 1949, Massachusetts Institute of Technology	
A.B. 1934, Municipal University of Wichita		Crouch, Robert Brighton	Idaho
Cooper, Wesley William	Va.	B.S. 1949, University of Idaho	
LL.B. 1947, The George Washington University		Cullen, Frank Haywood	Va.
Cope, Harland Burleigh	Kans.	B.S. in E.E. 1949, The George Washington University	
A.B. 1946, University of Kansas		Cullen, Matthew Joseph, Jr.	D.C.
Coppel, Arthur	N.Y.	A.B. 1946, Harvard University	
A.B. 1949, University of Virginia		Culpepper, Robert Everett	D.C.
Cornell, Lacy Paul	Md.	A.B. 1948, The Citadel	
A.B. 1949, The George Washington University		Cummings, Samuel	D.C.
Cornwell, Richard Edwin	Va.	A.B. 1949, The George Washington University	
A.B. 1946, Hampden-Sydney College		Cunningham, Dewey Junior	Va.
Corrison, John Raymond	D.C.	B.M.E. 1947, University of Louisville	
A.B. 1939, University of Maryland		Currin, John Langford	Va.
LL.B. 1942, The George Washington University		A.B. 1949, The George Washington University	
Cortez, Ezekiel Casimiro, Jr.	N.M.	Curry, John Vincent	N.Y.
A.B. 1943, New Mexico College of Agriculture and Mechanic Arts		Curry, Stowers Leigh	Va.
LL.B. 1948, The George Washington University		A.B. 1948, The George Washington University	
		Curtis, Allen Benjamin	Ohio
		B.Ch.E. 1943, Fenn College	
		Cushman, Robert Everton, Jr.	Minn.
		B.S. 1935, United States Naval Academy	
		Custard, Robert Franklin	Va.



## D

Daeifus, Jordan Albert	Va.	Del Russo, Alessandra Luini	Md.
A.B. 1949, Harvard University		Dr. Litt. 1939, Milan State University, Italy	
Dalonas, John	D.C.	Dr. Jur. 1943, Pavia State University, Italy	
Daley, William John	Mass.	De Marr, Frederick Stanley	Md.
A.B. 1941, Tufts College		A.B. 1949, University of Maryland	
Dalton, Stanley Charles, Jr.	Md.	Dembling, Paul Gerald	N.J.
B.S. 1947, Rensselaer Polytechnic Institute		A.B. 1940, A.M. 1942, Rutgers University	
Daly, John Joseph	Va.	Dempsey, James Paul	Pa.
A.B. 1949, The George Washington University		B.S. 1943, University of Scranton	
Daniel, Neil	D.C.	M.S. 1949, Columbia University	Nev.
Daniel, William Jeffress	N.C.	Denton, Ralph Lloyd	Md.
B.Ch.E. 1947, North Carolina College at Durham		DePaul, Joseph Alfred	W.Va.
Daniels, Thomas J.	Pa.	DePond, Frank James	
Danilowicz, Pascal Joseph	Md.	A.B. 1946, West Virginia University	
B.S. 1948, Wilkes College		DeRosa, Edward Francis	Mass.
D'Antimo, Daniel	N.Y.	A.B. 1947, The George Washington University	
B.S. 1948, University of Buffalo		Derrick, Duane Greenwood	Utah
Darlin, Lewis R., Jr.	D.C.	A.B. 1948, The George Washington University	
Darsch, Earl Clement	Va.	Desha, John Rollin	Hawaii
A.B. 1941, Western Maryland College		Detling, Harold C.	Calif.
Dart, Albert Laplace	La.	Detorie, George William	Va.
A.B. 1934, LL.B. 1937, Tulane University		B.S. 1948, Georgetown University	D.C.
David, Maurice Allen	Ind.	Deutsch, Norman	
Davis, John Rhys	D.C.	B.Ch.E. 1944, College of the City of New York	
A.B. 1946, University of North Carolina		M.Ch.E. 1948, New York University	
Davis, Carl Clell	Okla.	Dibner, Richard Eugene	N.Y.
B.S. 1942, LL.B. 1949, Oklahoma Agricultural and Mechanical College		B.M.E. 1943, College of the City of New York	
Davis, Charles Russell	Tex.	Dickmeyer, John T.	Va.
Davis, Clifford, Jr.	Tenn.	A.B. 1949, University of Massachusetts	
A.B. 1949, The George Washington University		Dickson, James Meek	Md.
Davis, John Alexander, Jr.	Calif.	Diemer, Robert Arthur	D.C.
A.B. 1927, Marshall College		Dietz, Stanley Martin	N.Y.
A.M. 1931, University of Michigan		Diffley, John Edward	Pa.
Davis, Sadye Jane	Pa.	Dillehay, Thomas Jefferson, Jr.	Tex.
A.B. 1947, The George Washington University		A.B. 1927, A.M. 1929, Baylor University	
Day, Clayton LaVern	D.C.	Di Maggio, Anthony Joseph	N.J.
B.S. 1923, C.E. 1929, Iowa State College		B.S. 1950, University of Maryland	
J.D. 1950, Drake University		Di Martino, Horace Robert	Mass.
Day, Ernest Herbert	Ohio	DiMona, Joseph Michael	N.J.
A.B. 1941, Oberlin College		A.B. 1947, Duke University	
Day, John Sanford	Va.	Dixon, Robert Galloway, Jr.	N.Y.
B.S. 1925, United States Naval Academy		A.B. 1943, Ph.D. 1947, Syracuse University	
Dea, Franklin	Calif.	Dixon, William Joseph	Md.
A.B. 1948, University of Maryland		Doane, John Emil	Md.
Deal, Laurie Joe	N.C.	B.E.E. 1936, The George Washington University	
B.S. 1944, Lenoir-Rhyne College		Dobkin, Abraham	N.Y.
Dean, Thompson	Conn.	A.B. 1948, The George Washington University	
A.B. 1916, Harvard University		Dobres, Jeanne Louise	Md.
DeBarr, John Richard	Pa.	A.B. 1949, The George Washington University	
A.B. 1947, Bucknell University		Dodd, Harold Gregory	Va.
DeBlasis, Samuel J.	Ohio	Dodge, John Parker	Md.
DeBruin, Wesley	Mich.	A.B. 1940, Johns Hopkins University	
B.S. in E.E. 1946, Illinois Institute of Technology		Doe, Norman Ross	Mass.
DeBurr, Mary Margaret	D.C.	A.B. 1948, Marshall College	
A.B. 1947, The George Washington University		Donaldson, John Eldridge, Jr.	D.C.
Delasos, Lewis	D.C.	A.B. 1949, The George Washington University	
A.B. 1948, The George Washington University		Donelson, Kenneth William	Nebr.
		Donnelly, Albert Lee, Jr.	Conn.
		A.B. 1947, Yale University	



Donnelly, Henry Joseph, Jr. B.S. 1928, University of Pennsylvania	Va.	Dunning, Alice Langley A.B. 1943, Queens College	N.Y.
Donnelly, Richard Charles	D.C.	A.M. 1944, Clark University	
Donnelly, William Francis	D.C.	Dunphy, Robert Giles	R.I.
Donnelly, William James	Md.	Dunstan, Chadwick	Hawaii
Donohue, John Andrew	D.C.	Dusenbury, Richard Green	S.C.
Doolittle, Glenn Alden B.S. 1939, Southwest Texas State Teachers College	Tex.	A.B. 1946, University of South Carolina	
M.B.A. 1940, University of Texas		Dworshak, Calvin George	Idaho
Dorasavage, William Joseph	Pa.	Dwyer, Jean Ferguson	Mass.
LL.B. 1949, Catholic University of America		A.B. 1948, The George Washington University	
Dorf, Paul Aaron	Md.	Dwyer, John Joseph	Da.
Dorie, William Matthew	N.Y.	A.B. 1947, The George Washington University	
Doub, Dorothy L.	N.C.	Dysart, Thomas Gilmore	Md.
A.B. 1941, Brenau College		B.S. in M.E. 1943, University of Missouri	
Dougherty, Frank R.	Md.		
A.B. 1946, The George Washington University		E	
Dougherty, Thomas James	N.D.		
Dougherty, Wayne J.	Iowa	Earl, Ira Roy	Nev.
A.B. 1941, Iowa State University		B.S. 1948, Brigham-Young University	
Dowell, Arthur Edward	D.C.	Earl, Owen Ken	Idaho
B.S. in E.E. 1943, Princeton University		A.B. 1948, Brigham-Young University	
Dowell, Earl Simeon	Ill.	Earle, John Howard	D.C.
B.S. 1947, University of Illinois		B.S. 1943, Pennsylvania State College	Pa.
Downes, John P.	N.Y.	Earle, William Kehr	
Downing, Leslie Burgess	D.C.	B.S. 1940, United States Coast Guard Academy	
B.S. 1920, United States Military Academy		Early, William Eugene	D.C.
Downs, Harold Alfred	Va.	Earnan, John William, Jr.	D.C.
Doyle, William Joseph, Jr.	Md.	Earnheart, Frank Jones	N.C.
Drape, Michael John	Ohio	A.B. 1947, University of North Carolina	
Dreifus, Jordan Albert	Va.	Eastin, Roy B.	Ky.
A.B. 1949, Harvard University		A.B. 1942, A.M. 1945, The George Washington University	
Dreoa, George Calvin	D.C.	Eberhart, Francis Claude	Va.
B.S. 1945, University of Alabama		A.B. 1940, University of Dubuque	
LL.B. 1948, The George Washington University		LL.B. 1948, University of Florida	Fla.
Drimmer, Saul E.	N.Y.	Edmondson, Francis Livingston	
B.S. 1940, The George Washington University		B.Ph. 1924, Emory University	Fla.
Driver, William Joseph	Va.	Edwards, James Edwin	
B.B.A. 1941, Niagara University		A.B. 1935, LL.B. 1946, The George Washington University	
Drysdale, Robert Morrison, Jr.	Ohio	Egger, Roscoe Lynn, Jr.	Md.
A.B. 1936, Harvard University		B.S. 1942, Indiana University	
LL.B. 1949, Cleveland-Marshall Law School		Egley, Paul Wesley	Calif.
Dufresne, Joseph Paul	D.C.	A.B. 1946, University of California at Los Angeles	
B.S. 1943, LL.B. 1948, Georgetown University		Ehrlich, Bernard Herbert	D.C.
Duft, Donald Matthew	Ill.	A.B. 1946, LL.B. 1949, The George Washington University	
B.S. in E.E. 1949, Illinois Institute of Technology		Eiring, Henry William	Md.
Dugan, Michael Hugh	Va.	B.S. 1949, Georgetown University	Vt.
Dugan, Thomas Joseph	Md.	Eldredge, Robert Breene	
B.S. 1933, Catholic University of America		A.B. 1948, Duke University	Ill.
Dum, Frank Bryan	Va.	Elkin, Benjamin	
Dumaine, Gabriel Romain	Va.	A.B. 1949, The George Washington University	
A.B. 1948, The George Washington University		Ellenberger, Kenneth Rehl	Ohio
Duncan, Donald Richard	D.C.	LL.B. 1948, B.S. 1949, Ohio State University	
A.B. 1938, Ohio State University		Elliott, Stephen Lyons	Md.
Duan, Dorothy	Nebr.	Elliott, William Homer, Jr.	N.J.
A.B. 1945, University of Nebraska		A.B. 1940, Wesleyan University	D.C.
Dunn, George Martin	D.C.	Ellis, James G., Jr.	Hawaii
A.B. 1949, The George Washington University		Ellis, Robert Kekumu	
		A.B. 1949, Harvard University	



Ellsworth, Charles West, Jr.	Md.	Ferrell, Robert Bennett	Ga.
B.S. 1947, University of Maryland		Ferrill, Grace Cecelia	R.I.
Elstrand, John Grover	D.C.	A.B. 1948, The George Washington University	
A.B. 1950, Texas Christian University		Fiddler, Robert William	N.Y.
Elward, Elizabeth Anne	Md.	B.M.E. 1946, College of the City of New York	
A.B. 1949, Trinity College		Field, Milton Mortimer	N.Y.
Embrey, Lemuel Jackson	Va.	B.S. in E.E. 1948, University of Nebraska	
A.B. 1937, LL.B. 1949, The George Washington University		Fields, Paul Henry, Jr.	Va.
Engelthaler, Fred Edward	Ill.	Filipek, Edward Gregory	D.C.
B.S. 1938, Illinois Institute of Technology		A.B. 1949, The George Washington University	
Engle, Clarence Hess, Jr.	Kans.	Filippone, Frank Joseph	Md.
A.B. 1944, University of Kansas		Filippone, Joseph Stephen	D.C.
Enzor, Thomas Henry, Jr.	Va.	Finch, Walter Gilchrist	D.C.
Ergas, Isaac	N.Y.	B.E.E. 1940, Johns Hopkins University	
B.M.E. 1948, New York University		LL.B. 1948, M.B.A. 1949, Temple University	
Eslinger, Frank Robert	Va.	LL.M. 1949, The George Washington University	
B.S. 1946, University of New Mexico		Fink, Jules Yerne	D.C.
Ethington, Paul James	D.C.	A.B. 1949, The George Washington University	
B.S. 1949, Iowa State College		Finken, John Anthony	Wis.
Ettenger, Robert Lee	D.C.	B.S. 1947, M.S. 1948, University of Wisconsin	
B.S. 1948, University of North Carolina		Finken, Warren Elroy	D.C.
Evans, Walker Williams	D.C.	B.S. in M.E. 1948, University of Wisconsin	
B.S. 1939, Presbyterian College		Finley, Charles Truman	Md.
Evers, Herbert J.	D.C.	Finn, John Louis	Pa.
B.M.E. 1947, Cooper Union		B.S. 1942, LL.B. 1949, Georgetown University	
Eves, Walter Curtis	Md.	Fischer, Harry Carl	D.C.
B.S. 1948, University of Pennsylvania		A.B. 1949, The George Washington University	
F			
Fain, Martin Robert	D.C.	Fischer, John Janos	D.C.
Fair, Robert James	Ind.	LL.D. 1932, University of Szeged, Hungary	
A.B. 1947, The George Washington University		Fisher, Henry Arthur	W.Va.
Fairbanks, Eugene Francis	D.C.	A.B. 1943, West Virginia University	
A.B. 1946, University of Kansas		Fisher, Herbert S.	D.C.
Falloon, James Hugh, Jr.	Nebr.	Fisher, John Hanus	Md.
A.B. 1948, The George Washington University		LL.D. 1931, University of Prague	
Fanget, Louis Alfred	N.J.	Fisher, Myers Norman	Va.
A.B. 1939, Rutgers University		A.B. 1949, College of William and Mary	
Farnsworth, Carl Davis	W.Va.	Fitch, Richard Walsh, Jr.	Conn.
A.B. 1942, West Virginia University		A.B. 1932, Amherst College	
Farrell, Edgar Henry, Jr.	N.Y.	LL.B. 1949, Columbia University	
Farrell, John Joseph	D.C.	Fitzgerald, Donald Edward	D.C.
B.S. 1946, University of South Carolina		A.B. 1949, The George Washington University	
Fassberg, Benjamin	Va.	Fitzpatrick, Daniel Joseph	Mass.
Faubion, Urban Hart	Tex.	B.S. 1949, Georgetown University	
B.S. in E.E. 1948, University of Texas		Flanagan, Bernard Lawrence	Vt.
Faust, James Emory	D.C.	Flanagan, Winifred Winsor	D.C.
A.B. 1948, The George Washington University		A.B. 1939, University of Chicago	
Favarella, Fiodie Paul	Pa.	Flanders, Robert Lee	Tex.
Feldman, Melvin Martin	D.C.	A.B. 1946, The George Washington University	
Fender, Ross Calvin	Nebr.	Flanigan, John William	D.C.
Fenichell, Melvin Medford	Va.	A.B. 1949, Gannon College	
A.B. 1943, Dartmouth College		Flax, Louis	D.C.
Ferguson, Francis Joseph	D.C.	B.S. in Ch.E. 1943, University of Maryland	
B.S. 1946, LL.B. 1949, Georgetown University		Fleck, Stephen Edward	Pa.
Ferguson, Isabel	N.C.	B.S. 1939, Thiel College	
A.B. 1925, Agnes Scott College		Fleishman, Irving	D.C.
A.M. 1927, University of Chicago		Fleming, Lester Leroy	D.C.
Fern, Benjamin Richard	Va.		
A.B. 1942, Queens College			
Fernandez, Carlos Benito	Cuba		
LL.D. 1943, University of Havana			
LL.B. 1949, University of Miami			







Gareau, Charles Frederick	Va.	Gilbert, Milton Edwin	D.C.
B.S. in M.E. 1939, The George Washington University		B.M.E. 1948, College of the City of New York	
Garlock, Edward Allen, Jr.	Md.	Gill, Rowland Pearson	La.
B.S. 1943, The George Washington University		A.B. 1949, Louisiana Polytechnic Institute	
Garrett, C. Donald	Va.	Gillen, Hugh Chisholm	Wis.
B.S. 1931, Franklin and Marshall College		A.B. 1937, University of Wisconsin	
Garrett, Paul Weatherly	D.C.	Gilmore, Edward Lee	Va.
A.B. 1949, The George Washington University		A.B. 1949, West Virginia University	
Garrett, Rufus Sanders, Jr.	Tex.	Gilmore, Frank Peter	Ill.
B.S. 1946, United States Military Academy		B.S. 1927, M.D. 1929, Loyola University	
Garris, Jack John	Mich.	LL.B. 1949, The George Washington University	
A.B. 1947, University of Michigan		Gingell, Robert Arthur	Md.
Garro, Edward Joseph	Nev.	A.B. 1948, The George Washington University	
Gates, Walter Samuel	Ky.	Ginsberg, Albert	N.Y.
A.B. 1942, Centre College		Gitings, Thomas Morton, Jr.	Md.
Gatlin, Daniel Ray	Md.	Glasgow, Richard Ellsworth	D.C.
B.E. in M.E. 1946, University of South Carolina		A.B. 1948, Bradley University	
Gattoni, Joseph Alexander	Mass.	Glass, Norman Pilmer	Iowa
Gaudet, Richard Austin	Mass.	A.B. 1937, Oklahoma City University	
B.S. in M.E. 1947, University of Rochester		LL.B. 1941, University of Oklahoma	
Gaughan, John Vincent	Va.	Glatstein, Irwin Lee	D.C.
A.B. 1932, Villanova College		B.S. 1939, A.M. 1940, University of Missouri	
LL.B. 1949, The George Washington University		Glenn, Ralph Ray	N.C.
Gaughan, Vincent Michael	N.Y.	A.B. 1946, University of North Carolina	
Gaus, William Carl	Pa.	Glowacki, John Henry	Pa.
A.B. 1949, Bucknell University		B.S. 1948, Bucknell University	
Gauss, Arthur	Md.	Gochberg, Lawrence	Conn.
B.S. in E.E. 1933, Drexel Institute of Technology		Goding, Maurice Wilfred	Alaska
Gavio, Martin Jerome	N.J.	A.B. 1933, Yankton College	
A.B. 1949, Norwich University		Goewey, Bruce Anderson	Mass.
Geier, Fredrick Raymond	Ohio	A.B. 1942, Colgate University	
B.B.A. 1948, University of Toledo		Goldenberg, Melvin Myron	D.C.
Gelak, Bernard Andrew	N.Y.	B.M.E. 1949, Catholic University of America	
B.S. in E.E. 1947, Syracuse University		Goldman, Alfred Merton	D.C.
Gelb, Joseph Donald	Pa.	Goldman, Samuel Zachary	D.C.
B.S. 1950, University of Scranton		A.B. 1949, The George Washington University	
Gemza, Theodore Anthony	Conn.	Goldman, Sherman H.	Mass.
Generelly, Richard Fleury	D.C.	B.S. in M.E. 1948, Northeastern University	
Gentile, John Joseph	W.Va.	Goldsand, Ronald Howard	N.Y.
George, Richard Bennett	Va.	Goldsborough, George Joseph, Jr.	Md.
A.B. 1949, The George Washington University		B.S. 1947, United States Military Academy	
Gerard, Richard	Mo.	Goldstein, Benjamin	D.C.
B.S. 1949, Kansas State College		B.S.S. 1931, M.B.A. 1932, College of the City of New York	
Gerhardt, Robert Bernard	Md.	Goltz, Bernard Kenneth	N.Y.
B.S. in M.E. 1947, Northwestern University		B.S.S. 1941, M.S. in Ed. 1942, College of the City of New York	
German, John William, Jr.	Ind.	Goodman, Marie Cleckner	D.C.
B.S. 1949, Rose Polytechnic Institute		A.B. 1945, College of Notre Dame of Maryland	
German, Josephine Elisabeth	Mich.	B.S. in L.S. 1947, Western Reserve University	
A.B. 1948, University of Michigan		Goodman, Thomas A.	D.C.
Germas, Demosthenes James	Va.	B.S. 1937, Buffalo State Teachers College	
Giangreco, Angelo Andrew	D.C.	A.M. 1939, Columbia University	
Gibbs, Robert Stewart	N.Y.	Gordon, Albert	Va.
Gibson, John Murray	Md.	B.M.E. 1944, College of the City of New York	
B.S. 1934, Washington and Jefferson College		Gordon, Francis Guthrie, Jr.	Va.
Gibson, Rankin MacDougal	Mo.	Gordon, Herbert Stephan	Ind.
LL.B. 1939, University of Missouri		A.B. 1947, Indiana University	
B.S.L. 1948, St. Paul College of Law	Kans.		
Gifford, Yale Wesley			
A.B. 1948, The George Washington University			



Gordon, Robert Norman	D.C.	Grundstein, Nathan David	Mich.
A.B. 1948, University of Buffalo		Ph.D. 1943, Syracuse University	
Gordon, Thomas Cooper	Va.	Guimond, Joseph Alexandre	Ohio
Goren, Howard J.	Md.	A.B. 1931, LL.B. 1933, Western	
Gorman, Frank John	Ohio	Reserve University	
Ph.B. 1943, John Carroll University		Gulko, Arnold George	Va.
LL.B. 1946, Western Reserve University		B.Ch.E. 1947, New York University	
Gorman, Vincent Andrew	N.Y.	Gwozdz, Jozef	D.C.
LL.B. 1948, Saint John's University		LL.B. 1939, University of Posnan,	
Gormley, Robert Joseph	N.Y.	Poland	
A.B. 1947, Michigan State College		LL.M. 1944, Oxford University,	
Gorin, Gerald Malvin	N.J.	England	
Gotschall, Gale Parkison	Nebr.		
LL.B. 1941, Washington College of		H	
Law		Haber, Georges	D.C.
A.B. 1949, The George Washington		A.B. 1949, New York University	
University		Haberman, David Isadore	D.C.
Gottshall, William Holt	D.C.	Hagan, John Joseph	Conn.
A.B. 1948, Allegheny College		B.S. 1943, Fordham University	
Gourley, Roy George	Pa.	LL.B. 1949, Georgetown University	
B.S. 1948, University of Alabama		Hager, Robert Edwin	Va.
Graf, Alfred Geza	N.Y.	A.B. 1950, West Virginia University	
Gralnick, Paul Philip	N.Y.	Hagle, Alfred Darius	Okla.
A.B. 1939, Brooklyn College		A.B. in Ed. 1947, Central State	
Granberry, William Alquin	Ala.	College	
B.S. in I.E. 1949, Georgia Institute		Haidt, Harold	N.Y.
of Technology		B.S. in Ch.E. 1947, Purdue University	
Gravatte, Robert Howerton, Jr.	D.C.	Halen, John Thomas	Va.
A.B. 1943, LL.B. 1947, University		LL.B. 1949, Saint John's College	
of Virginia		A.B. 1949, Brooklyn College	
Gray, Daniel William	Mass.	Halish, Walter George	Conn.
Gray, John Allan, Jr.	N.J.	A.B. 1949, The George Washington	
B.S. 1949, Pennsylvania State College		University	
Graybeal, John Olin	Wash.	Hall, Joseph Earl	W.Va.
B.S. 1943, College of Puget Sound		A.B. 1949, Marshall College	
Green, Harold Arnold	D.C.	Hallberg, Ernest Van, Jr.	Fla.
Green, Harold Hoadly, Jr.	Ohio	A.B. 1942, University of Florida	
B.S. in E.E. 1947, Purdue University		Hamby, John Gordon	Ky.
Green, Robert A.	Mass.	B.S. in M.E. 1947, University of	
A.B. 1942, Clark University		Kentucky	
B.S. 1948, University of Michigan		Hamilton, Lloyd William	D.C.
Green, Samuel	D.C.	A.B. 1948, The George Washington	
A.B. 1948, The George Washington		University	
University		Hamlin, Alan Holden	Fla.
Greenberg, Sidney	Mass.	Hammer, David Edwin	Ill.
B.S. 1940, Massachusetts State College		A.B. 1949, The George Washington	
Greene, Harold Herman	D.C.	University	
Greenfield, Ralph Benedict	Md.	Hammill, Francis Raymond, Jr.	N.Y.
A.B. 1935, University of Chicago		A.B. 1948, University of Rochester	
Gregg, James Calvin	Pa.	Hance, Edward	Fla.
Grenadier, Albert Harold	Va.	B.S. 1946, University of South	
A.B. 1949, The George Washington		Carolina	
University		Hancock, Katharine I.	Calif.
Grey, William Jackson	D.C.	A.B. 1942, University of California	
B.S. 1949, University of Maryland		Hancock, Quinlan Harris	Va.
Grier, Harold Thomas	D.C.	Handy, John Bruce	D.C.
Griffith, Eugene Everett	Tenn.	A.B. 1943, Washington and Lee	
A.B. 1928, The George Washington		University	
University		Haney, Robert Locke	Calif.
A.M. 1938, Columbia University		A.B. 1949, University of California	
Griffith, Robert John	Va.	Hankes, Wilbur Ray	D.C.
A.B. 1938, LL.B. 1941, Syracuse		B.S. in M.E. 1942, Case Institute	
University		of Technology	
Grimes, John Francis	Va.	Hanley, Charles	N.Y.
Grobman, William	N.J.	Hannoosh, Raymond Thomas	Va.
B.S. in E.E. 1944, Rutgers University		A.B. 1935, Dartmouth College	
Grover, Jesse Barrett, Jr.	Va.	Hansbarger, William Henry	Va.
B.S. in Ch.E. 1939, Virginia Poly-		A.B. 1947, University of Maryland	
technic Institute		Hansen, Walter Daniel	D.C.
Grubb, Stephen	Nebr.	Hanson, Henry, Jr.	Conn.
Grumling, Albert John	D.C.	A.B. 1940, Wesleyan University	
		A.M. 1941, Harvard University	



Happick, Richard Jay	N.Y.	Heeney, Elizabeth Anne	D.C.
B.M.E. 1948, Syracuse University		A.B. 1946, Montclair State Teachers College	
Harbaugh, George Harold	D.C.	Hellmuth, James Grant	D.C.
A.B. 1948, Rutgers University		B.S. 1948, Yale University	
Harbison, Earle Harrison, Jr.	Mo.	Hellstrom, Ralph Edwin	Ill.
A.B. 1948, Washington University		A.B. 1945, Augustana College	
Hardin, Dale Wayne	Ill.	Helvenston, Edward Gary	Va.
A.B. 1949, The George Washington University		A.B. 1933, LL.B. 1938, Harvard University	
Hargy, Francis Robert	Md.	Helzer, Charles William	Fla.
A.B. 1948, The George Washington University		B.S. 1945, Georgia Institute of Technology	
Harloff, William Carroll	Md.	Hemmings, John Buster	W.Va.
Harmon, Robert Brooks	Md.	B.S. in Comm. 1949, University of Virginia	
B.S. 1941, University of Maryland		Hendershott, Susan Jane	Md.
Harper, Richard Howard	W.Va.	Hendrick, Charles Edward	Pa.
Harris, Richard Carl	Iowa	B.S. 1949, University of Maryland	
B.S. 1947, Iowa State College		Hennessy, Charles Edward	Md.
Harrison, Byron Edward	D.C.	Henretta, David Howard	W.Va.
Harrison, Raymond William	Md.	Henry, Edwin Stanton, Jr.	D.C.
B.S. 1949, University of Maryland		Henry, Raymond Charles	Iowa
Harshbarger, Sam Ross	W.Va.	A.B. 1949, State University of Iowa	
A.B. 1949, West Virginia University		Henson, Edwin Nott, Jr.	D.C.
Hart, Seward Lyman	S.D.	A.B. 1948, The George Washington University	
A.B. 1938, Yankton College		Herman, Jack Robert	Va.
Hartman, Charles Clifford, Jr.	Calif.	A.B. 1943, The George Washington University	
Harvey, Robert Henry	D.C.	Herman, Russell Royden	Alaska
A.B. 1948, The George Washington University		A.B. 1949, Washington State College	
Haskell, Boris	Mass.	Herrick, Harold Colton, Jr.	Mo.
A.B. 1944, Harvard University		B.S. 1937, Washington University	
Haskell, James K.	Calif.	Heslop, Robert Jerrott	N.Y.
B.S. 1949, The George Washington University		A.B. 1948, New York University	
Hatch, Albert Haig	Pa.	Hetzler, William Joseph	Md.
A.B. 1927, University of Pennsylvania		B.S. 1948, Georgetown University	
LL.B. 1933, Temple University		Hewlett, Glenn Howard	Ill.
Hatfield, William Adair	W.Va.	Hiers, Jasper Theodore	N.C.
A.B. 1947, West Virginia University		Hiestand, Dale Melvin	Ohio
Hattis, Russell Elmer	D.C.	A.B. 1949, Mount Union College	
B.S. in E.E. 1947, University of Illinois		Hildreth, Richard	D.C.
Hauck, William McRae	Ind.	Hill, Joseph Andrew	Va.
Haug, Irving Manson	Wash.	A.B. 1939, Lynchburg College	
A.B. 1948, University of Washington		LL.B. 1949, Louisiana State University	
Hawk, Gordon Leigh	Md.	Hill, Joseph Carl	Md.
A.B. 1948, American University		B.S. in B.A. 1940, Mount St. Mary's College	
Hayek, Will J.	Iowa	Hill, Richard Edwin	Va.
Hayes, Robert William	N.Y.	B.S. 1949, Virginia Military Institute	
A.B. 1939, Columbia University		Hill, Richard Work	Va.
Hayley, Basil	Va.	Hill, William Bethel, Jr.	Va.
A.B. 1948, The George Washington University		B.S. 1941, University of Virginia	
Haynes, Alton Myles, Jr.	D.C.	Hilliard, Benjamin Clark	D.C.
A.B. 1949, University of North Carolina		A.B. 1948, West Virginia University	
Hays, Marion Steele	Ark.	Hillier, Floyd William	Wis.
A.B. 1948, University of Arkansas		B.S. 1948, Michigan State College	
Hays, Ralph Emerson, Jr.	Miss.	Hillman, Jack Allan	D.C.
A.B. 1949, Millsaps College		Himelfarb, Jordan Sheldon	D.C.
Healey, Alan John	D.C.	Hines, Emmett Womack	N.Y.
A.B. 1948, The George Washington University		B.S. in M.E. 1946, Cornell University	
Hearn, Alexander McMurray	Md.	M.B.A. 1948, Columbia University	
Hebele, Harold William	D.C.	Hintze, William	Md.
A.B. 1949, Roosevelt College		B.E.E. 1949, The George Washington University	
Hecht, Irving Mark	Md.	Hirsch, Robert Bruce	D.C.
B.B.A. 1947, College of the City of New York		Hise, James Cletis	Ill.
Hedley, Robert Kenneth	Ill.	A.B. 1948, University of Illinois	



Hise, William Curtis	Ill.	Hopper, Nathaniel Wilson	Md.
A.B. 1948, A.M. 1949, University of Illinois		Horne, Joe Louis	D.C.
Hiss, Alfred Lee	W.Va.	B.S. 1941, United States Coast Guard Academy	
Hix, Ernest Theodore	Va.	Horne, Leon Russell	Mo.
B.M.E. 1949, The George Washington University		B.S. 1943, Northeastern University	
Hobbes, Alan Buxton	Fla.	Horsky, Eugene Gregory	N.Y.
A.B. 1939, Washington and Lee University		B.S. 1948, B.C.E. 1949, Rensselaer Polytechnic Institute	
LL.B. 1947, The George Washington University		Horton, Donald Raymond	N.D.
Hodges, Quinton Edward	Ga.	B.S. 1948, Valley City State Teachers College, N.D.	
B.S. 1935, University of Georgia		Horton, Marvin Vale, Jr.	N.C.
M.S. 1937, John B. Stetson University		B.S. 1948, University of North Carolina	
Hodges, Willard Jefferson, Jr.	Ala.	Horvath, John George	Md.
LL.B. 1937, University of Alabama		B.S. 1949, University of Denver	
Hoefler, Bruce Reginald	N.Y.	Horwitz, Harold	N.Y.
B.S. 1946, United States Naval Academy		Houseal, Robert Wright, Jr.	S.C.
Hoefler, Frederick Adam Carl	Va.	B.S. 1943, The Citadel	
J.D. 1931, University of Berlin, Germany		Houston, James Knox	D.C.
LL.M. 1941, Harvard University		Howland, Harold Howard, Jr.	Mass.
Hoernig, Kurt H.	Germany	A.B. 1947, The George Washington University	
Hoffman, Robert Douglas	D.C.	M.B.A. 1949, Harvard University	
Hogan, Marjorie Bell	Md.	Hoyt, John G.	D.C.
A.B. 1942, Shorter College		B.S. 1943, United States Military Academy	
Holbrook, Ollie James	Ky.	Hubbard, Russell Hale, Jr.	Conn.
Holcombe, William Collis	Ala.	B.S. in E.E. 1944, Syracuse University	
A.B. 1947, The George Washington University		Hudgins, John Jefferson	D.C.
Holezman, Frank Joseph	Pa.	LL.B. 1949, The George Washington University	
A.B. 1949, Muhlenberg College		Hudson, Dugald Walker	S.C.
Holeman, William Daniel	Tenn.	B.S. 1940, Presbyterian College	
Holford, Bond Larry	Md.	LL.B. 1949, The George Washington University	
Holland, Morton	N.Y.	Hughes, Harry Roe	Md.
B.S. in E.E. 1947, Cornell University		B.S. 1949, University of Maryland	
Holley, Max Vinson	Va.	Hughes, Michael Vincent	N.Y.
B.S. 1939, The George Washington University		Hull, Maury Isaac	Tenn.
Hollingsworth, Gerald Eugene	D.C.	A.B. 1932, Southwestern University	
Hollingsworth, William Leon	Miss.	A.M. 1946, The George Washington University	
A.B. 1950, The George Washington University		Hulvey, Charles Newton, Jr.	Va.
Hollis, James George	Md.	B.S. 1936, University of Virginia	
B.S. 1948, American University		Humes, Theodore Leon	Va.
Holtzman, Frank Joseph	Pa.	A.B. 1948, University of Pittsburgh	
A.B. 1949, Muhlenberg College		Hundley, Henry Robert	W.Va.
Holt, Edward Brewster	Ill.	Hunter, Donald Vanosdal, Jr.	Md.
B.S. 1947, University of Michigan		Hunter, Millard Stanton	N.C.
Holt, Felix Thomas	Okla.	B.S. 1938, University of North Carolina	
A.B. 1949, American University		Hurley, John James	D.C.
Holt, George P.	Hawaii	A.B. 1948, The George Washington University	
A.B. 1949, University of Hawaii		Hurley, Wilson Patrick	N.M.
Holtzman, Irving	D.C.	B.S. 1943, United States Military Academy	
A.B. 1940, Brooklyn College		Hurson, James Vincent	Md.
Honabach, Elmer Wilson	Va.	B.S. 1948, American University	
Hood, Louis, Jr.	Md.	Hurst, Carl Wilson, Jr.	Tenn.
A.B. 1948, Amherst College		A.B. 1949, The George Washington University	
Hood, Robert Hunter	N.C.	Hurt, Mary Tex	Ala.
B.S. 1942, Davidson College		A.B. 1949, The George Washington University	
Hoopes, Townsend Walter	N.Y.	Hurwitz, Harlan Earl	D.C.
A.B. 1944, Yale University		A.B. 1949, The George Washington University	
Hope, Robert Allison	D.C.		
A.B. 1921, Presbyterian College			
Hope, Robert Stocks	Va.		
Hopkins, George Mathews Marks	Ala.		
B.S. in Ch.E. 1944, Alabama Polytechnic Institute			
LL.B. 1949, University of Alabama			
Hoppe, Louis William	Va.		
B.S. 1940, University of Illinois			



Hussar, Edward John	Ill.	Jaskiewicz, Edmund Michael	Conn.
A.B. 1946, The George Washington University		B.S.E. 1947, University of Connecticut	
Hutchinson, Alan Stanton	D.C.	Jaskiewicz, Joseph Francis	Pa.
B.S. 1948, St. Martin College		A.B. 1949, The George Washington University	
Hutchinson, Eileen Marie	D.C.	Jaskot, John Joseph	Pa.
Hutchinson, George Edward	D.C.	Jeffers, Albert Lavern	Ind.
Hutchinson, Herbert Malcolm	N.J.	B.S. 1949, Evansville College	
A.B. 1948, Duke University		Jeffries, Albert Carmie	D.C.
A.M. 1950, The George Washington University		Jeffries, Ardith Elaine	D.C.
Hutchinson, William David	Va.	A.B. 1949, Mary Washington College	Iowa
A.B. 1949, University of Maryland		Jenkel, Albert Arthur	Iowa
Hutson, Harrison Darden	La.	Jenkel, Martin John, Jr.	Va.
A.B. 1948, Southeastern Louisiana College		Jennings, Barnard Fulton	
Hyde, Edward Richard	N.Y.	B.S. 1948, University of Virginia	Wyo.
B.S. in E.E. 1948, Purdue University		Jensen, Willis John	
Hymowitz, Helen	D.C.	B.S. 1947, Pennsylvania State College	
		Jernberg, Dale Leonard	Md.
		Jeter, William Tyree	Okla.
		Jewett, John Stanford	Md.
I		B.S. 1948, Georgetown University	
Ikegami, David Takeshi	Hawaii	Jividen, Randolph Lane	W.Va.
A.B. 1949, The George Washington University		Johnson, Donald Lewis	S.D.
Imrie, Walter Curtis	Va.	B.S. in Ch.E. 1947, Purdue University	
B.S. 1946, Rhode Island State College		Johnson, Leighton Eugene	Minn.
A.M. 1949, American University		A.B. 1948, The George Washington University	
Irons, Edward Sterling	D.C.	Johnson, Marion Meek	Ala.
B.S. 1942, J.D. 1947, University of Illinois		A.B. 1939, University of Alabama	
Irvine, Eleanor Hood	N.Y.	Johnson, Norton Steele	Md.
A.B. 1937, Cornell University		Johnson, Paul Douglas	N.M.
Isaac, Isaac	D.C.	B.S. 1940, University of Southern California	
A.B. 1949, The George Washington University		Johnson, Ray Carl	Ala.
Isom, Clifford Clinton	D.C.	B.S. 1937, LL.B. 1939, University of Alabama	
B.S. 1939, Kansas State College		LL.M. 1942, The George Washington University	
J		Johnson, Richard Carl	Md.
Jackson, Frank Holbrook	Md.	Jones, Calvin Clark	D.C.
B.S. 1938, University of Maryland		Jones, Cullen Bryant	D.C.
Jackson, Philip Grant	D.C.	A.B. 1948, The George Washington University	
Jackson, Thomas Lester	D.C.	Jones, Darrell Lloyd	Tex.
Jacob, John Brevard	D.C.	Jones, Doris Jeanne	Va.
Jacobi, George Rudolph	N.Y.	Jones, Everitt Craig, Jr.	N.C.
A.B. 1948, Gettysburg College		Jones, James Frederick	Va.
Jacobs, Morton C.	D.C.	Jones, James Mitchell	D.C.
B.S. 1942, College of the City of New York		Jones, Jack Clayton	Okla.
Jacobson, Odd Thomas	N.D.	B.S. in Ch.E. 1939, Oklahoma Agricultural and Mechanical College	
A.B. 1948, The George Washington University		Jordan, George Sanford	D.C.
Jacobstein, Harold	Pa.	Jovanovich, George Stephan	D.C.
B.S. in Ed. 1949, Indiana State Teachers College, Pa.		LL.B. 1933, University of Belgrade, Yugoslavia	
Jaekel, Georgie Marion	Fla.	Joy, Robert Alvin	Nev.
A.B. 1948, Florida State University		A.B. 1940, University of Nevada	
Jamgochian, Hagop Herach	Mass.	Julien, Carl Alden	Oreg.
A.B. 1949, Clark University		B.S. 1945, University of Washington	
Janson, Lars Edward	Va.	M.S. 1947, University of Notre Dame	
A.B. 1948, The George Washington University			
Jarcho, Harold George	R.I.	K	
B.S. in E.E. 1940, Rhode Island State College		Kaczmar, William	Pa.
Jarema, Frank Gerald	Ohio	A.B. 1949, The George Washington University	
Jarvis, Albie Joseph	Mass.	Kahn, Fritz Reiner	Md.
Jasch, Verlin Elmer	Ind.	A.B. 1948, The George Washington University	
A.B. 1949, The George Washington University		Kaiser, Stanley, M.	D.C.



Kait, Harry Carl	N.J.	Kelly, Francis Keith	D.C.
B.S. 1928, Temple University		A.B. 1948, The George Washington University	
LL.B. 1938, University of Newark		Kelly, John Leo	Md.
LL.M. 1949, The George Washington University		B.S. 1947, The George Washington University	
Kalb, Vernon Frederic	Ky.	Kemer, Frank Conrad	Md.
B.S. 1947, University of Kentucky		A.B. 1949, The George Washington University	
Kalfus, Ira	D.C.	Kemp, William George	Md.
Kalvin, Paul Craig	D.C.	A.B. 1949, The George Washington University	
A.B. 1948, The George Washington University		Kenkel, John Bonaventure	Md.
Kamm, Arthur Thorpe		A.B. 1949, Colgate University	
A.B. 1948, American University	Hawaii	Kennedy, Harold Grant	Tex.
Kanemoto, Shigeto		Kennedy, Joseph Bernard, Jr.	Va.
A.B. 1949, University of Hawaii		A.B. 1947, LL.B. 1949, The George Washington University	
Kaplan, Harold Irving	D.C.	Kennedy, Oliver	D.C.
B.S. 1942, University of Maine		Kent, Arthur Peter	Va.
LL.B. 1948, Harvard University		B.S. 1941, The George Washington University	
Kaplan, Louis Charles	Md.	Kent, Perrin Aloysius	Mo.
A.B. 1934, Yale University		A.B. 1941, The George Washington University	
LL.B. 1945, LL.M. 1948, Georgetown University		Kerr, Richard Haller	W.Va.
Kaplan, Marcia	Md.	A.B. 1948, West Virginia University	
A.B. 1946, University of Michigan		Kerr, Thomas Moore, Jr.	N.J.
Kappler, Charles Theodore	D.C.	A.B. 1940, Lafayette College	
A.B. 1942, Yale University	N.Y.	Kiechel, Walter, Jr.	Nebr.
Kardos, Alexander Thomas		A.B. 1941, University of Nebraska	
B.S. 1935, College of the City of New York	D.C.	LL.B. 1949, Yale University	
Kardy, Leonard Thomas		Kilburne, Richard Francis	Va.
LL.B. 1949, The George Washington University	N.Y.	A.B. 1948, The George Washington University	
Karlene, Michael Matthew	N.Y.	Killingsworth, Ted Eugene, Jr.	Vt.
A.B. 1933, University of Rochester		B.M.E. 1943, Clemson College	
Karsted, Jessie Walton	Fla.	LL.B. 1949, University of Utah	
Kator, Irving	N.Y.	King, Arthur Carl	Conn.
A.B. 1941, University of Michigan		B.S. 1949, Georgetown University	
Katz, Murray	N.Y.	King, Glenn Richard	Md.
B.Ch.E. 1947, College of the City of New York		A.B. 1948, Gettysburg College	
Kaufman, Rae Ann	Tex.	King, Ruth Evelyn	Ohio
A.B. 1950, Texas State College for Women		B.S. 1932, LL.B. 1935, University of South Dakota	
Kawahara, Thomas Tomokazu	Hawaii	Kinney, David Bowen	Va.
A.B. 1940, University of California		A.B. 1943, Alma College	
LL.B. 1945, DePaul University	D.C.	Kinsel, James Nolan	D.C.
Kayson, David		B.S. 1943, University of Maryland	
Kearney, William Robert	N.J.	Kinzer, James Brooks	Pa.
Keaveney, Donald Charles	Mass.	B.S. 1948, Pennsylvania State College	
B.S. 1942, Bowdoin College		Kip, Ruloff Frederic, Jr.	N.J.
Keener, Wayne Mertz	Pa.	B.S.E. 1943, Princeton University	
B.S. 1949, Georgetown University		Kirby, Edward Francis, Jr.	Conn.
Kekich, Nicholas	Pa.	Ph.B. 1937, Providence College	
Kelleher, William Vincent	Mass.	Kirby, Ernest Calvin	Va.
B.S. 1949, Tufts College		Kirk, Charles Gilbert	Wash.
Kelley, David Philip	D.C.	A.B. 1931, University of Washington	
B.S. in E.E. 1949, Lehigh University		Kirkman, Albert Gwinn, Sr.	Md.
Kelley, Frank William	Mich.	B.S. 1927, Virginia Polytechnic Institute	
Kelley, Wallace Ralph	D.C.	Kirsch, Martin Joseph	D.C.
A.B. 1948, American University		Kirshbaum, Amiel	D.C.
Kellison, John Ray	Va.	B.S. 1937, University of Maryland	
B.S. in B.A. 1941, University of Richmond		Kitts, Willard Frederick	Mass.
Kelly, Catherine Burton	Md.	A.B. 1942, Amherst College	
A.B. 1939, Smith College		Kivitz, Murray Abraham	N.J.
Kelly, Dee J.	D.C.	B.S. 1949, New York University	
Kelly, Edward Joseph	Pa.	Klavan, Stanley	Md.
B.S. 1939, Drexel Institute of Technology		Klipple, Mary Jane	Colo.
Kelly, Edward Thomas	Ill.	A.B. 1946, The George Washington University	
Kelly, Frances Anne	Va.		
A.B. 1944, University of Chicago			



Klitzman, Maurice H.	D.C.	L	
B.S. in M.E. 1948, Purdue University			
Klostermann, Wolfgang Ekart	Ill.	Labunski, Stephen Bronislaw	Mo.
Kniazer, Igor Alexis	D.C.	Laffin, Edward John	Calif.
B.S. 1949, Georgetown University		Lagather, Robert Bosco	Minn.
Knightor, Herbert Vincent	Md.	Lagomarcino, Paul Donald	Ill.
Knopp, Edna	N.Y.	A.B. 1948, State University of Iowa	
A.B. 1943, Brooklyn College		LL.B. 1949, The George Washington	
Knowles, Myles Henry	D.C.	University	
A.B. 1949, Michigan State College		Lainof, Robert Ivan	Va.
Koblantz, Charles	Md.	B.S. 1939, North Carolina State	
Kohloss, Frederick Henry	D.C.	Teachers College	
B.S. in M.E. 1943, University of		La Lande, Allen Lee	Tex.
Maryland		Lally, Paul Thomas	Pa.
Kokulis, Paul Nicholas	N.H.	Lalush, Basil	D.C.
B.S. 1944, Worcester Polytechnic		B.E.E. 1949, Catholic University	
Institute		of America	
Kolodny, Joseph George	D.C.	Landing-Miranda, Jorge Luis	Puerto Rico
A.B. 1935, Harvard University		A.B. 1949, Florida Southern College	
Konick, Bernard	N.Y.	Landis, Harry Campbell	Md.
B.S. 1948, Brooklyn College		Lane, Munson Harmon, Jr.	Va.
Konold, William George	Ohio	B.S. 1948, Emory and Henry College	
B.E.E. 1949, Cornell University		Lang, Edward Alexander	Fla.
Koonts, Robert Henry	N.C.	B.S. in B.A. 1943, University of	
B.S. 1949, University of North		Florida	
Carolina		Langenbeck, Earl Henry	Md.
Kopek, John Longin	N.Y.	B.S. in C.E. 1944, University of	
Koplin, Allen Atlas	D.C.	Missouri	
Kopp, Paul Joseph	Va.	Langr, George Edward	N.Y.
A.B. 1932, Lehigh University		A.B. 1948, Union College	
A.M. 1933, Duke University		Lapham, George Sealy	Ga.
Korn, Seymour	N.Y.	Lapin, Earl M.	N.Y.
Kornblatt, Julius	N.Y.	Lappin, John Eldridge	D.C.
Kostelic, Albert Anthony	Colo.	Larimore, Theodore Russell	Md.
A.B. 1949, Western State College of		B.S. 1928, Indiana University	
Colorado		M.S. 1931, University of Illinois	
Kostik, Peter James	Ohio	Ph.D. 1945, University of Nebraska	
A.B. 1949, The George Washington		Lasley, Donald Gray	D.C.
University		A.B. 1949, Duke University	
Koutoulakos, Louis	Va.	Lathram, Leslie Wade	Va.
A.B. 1949, The George Washington		A.B. 1937, Miami University	
University		A.M. 1939, University of Cincinnati	
Koutsandreas, Peter Dionysius	D.C.	Latt, Benjamin	R.I.
B.C.E. 1948, The George Washington		A.B. 1948, Brown University	
University		Lattimer, Patricia Ann	W.Va.
Kozel, Alexander	Pa.	A.B. 1949, West Virginia University	
Kozlowski, Joseph John	Ill.	Lau, Stanley Ying Chan	Hawaii
Kraft, Lester	Md.	Laughlin, John Gregory, Jr.	Kans.
A.B. 1948, University of Maryland		Laughlin, Richard Thomas	N.Y.
Kreek, Louis Francis, Jr.	D.C.	B.S. in Ch.E. 1949, University of	
B.S. 1948, Massachusetts Institute of		Notre Dame	
Technology		Lavine, Irvin Arthur	Va.
Krist, Fred George	N.Y.	B.A.E. 1947, Catholic University of	
Krol, Casimir Thaddeus	Va.	America	
A.B. 1947, St. John's College		Lawrence, Derek Peter	N.Y.
Kuchler, Ralph Rudolph	D.C.	B.M.E. 1948, Clarkson College of	
A.B. 1948, LL.B. 1949, The George		Technology	
Washington University		Leach, Daniel Joshua	Minn.
Kudysh, Morton	N.Y.	B.S.F. 1938, University of Minnesota	
Kulla, A. Lincoln Acker	D.C.	M.F. 1946, Yale University	
Kune, Bernard Jack	D.C.	Leach, Frank Clay, Jr.	Ky.
Kunz, Karl Michael	R.I.	B.S. in M.E. 1947, University of	
Ph.B. 1941, Providence College		Kentucky	
LL.B. 1947, Georgetown University		Leader, John Louis	N.Y.
Kurimoto, Ayako Ann	Calif.	B.S. 1940, Canisius College	
A.B. 1940, University of Washington		LL.B. 1949, Georgetown University	
Kurz, Philip Elledge	D.C.	Learman, John Frank	Mich.
B.S. 1942, University of Maryland		B.S.E. 1949, Michigan State College	
Kytile, Stuart Frederick	Md.	Leary, James Edward	Ark.
A.B. 1948, The George Washington		A.B. 1948, Duke University	
University		Leary, Robert George	N.Y.
		LeBlanc, Joseph Lenol	La.



Lee, Raymond	N.Y.	Lindberg, Dale Sheldon	Pa.
B.S. in I.E. 1948, Pennsylvania State College		A.B. 1943, Bucknell University	
Lefkowitz, Saul	N.Y.	Lindley, Thomas Madison	Ariz.
B.S.S. 1940, College of the City of New York		Line, Lucille	Mont.
Legum, Howard Isadore	Va.	A.B. 1940, Montana State University	
A.B. 1943, Harvard University		Linhof, Eric	D.C.
Lehnert, Robert Conrad	N.Y.	A.B. 1949, University of Rochester	
Leimbach, Dorothy Gadbois	D.C.	Lippitt, Raymond Franklin	D.C.
A.B. 1945, Brown University		B.M.E. 1949, The George Washington University	
Leimbach, Leonard LaSal	D.C.	Lippitt, Thomas Perry	D.C.
A.B. 1946, Brown University		Lipsky, Harold	N.Y.
LL.B. 1948, The George Washington University		A.B. 1947, New York University	
LePore, William August	W.Va.	Lissauer, Nanette Elisabeth	Netherlands
Lerner, Theodore Nathan	D.C.	Doctorate in Law 1938, Leiden University, Netherlands	
Lessuk, Gerald H.	N.Y.	Litke, Arthur Ludwig	Conn.
Lester, Edwin	D.C.	B.S. 1944, Trinity College	
B.E.E. 1949, Rensselaer Polytechnic Institute		M.B.A. 1947, University of Pennsylvania	
Levin, Jacob Solomon	D.C.	Littman, Simon	D.C.
LL.B. 1949, The George Washington University		LL.B. 1931, University of Maryland	
Levin, Joseph	D.C.	Lockhart, Elizabeth Berkeley	Va.
LL.B. 1949, The George Washington University		A.B. 1927, College of William and Mary	
Levin, Mark	Ill.	Lohm, Thomas Alexander	Md.
B.S. in Ch.E. 1948, Princeton University		A.B. 1949, The George Washington University	
Levine, Alfred Bernard	N.Y.	Lokke, Bernard Molineaux	N.Y.
B.S. in E.E. 1946, Cornell University		Lonas, Leonard Luther, Jr.	Va.
M.E.E. 1949, Rensselaer Polytechnic Institute		B.S. 1947, Virginia Military Institute	
Levine, Carl Ralph	Mich.	London, John Monte	N.Y.
B.S. 1936, M.S. 1938, University of Michigan		A.B. 1941, Harvard University	
Levine, Grace Flax	N.Y.	Long, Dewey Cecil	Okla.
Levine, Irving	Md.	Long, George Edward	D.C.
Levine, Irving Seth	N.Y.	LL.B. 1949, The George Washington University	
B.S. 1941, M.S. 1941, Massachusetts Institute of Technology		Long, William Francis Edward	D.C.
Levinson, Lawrence Stanley	N.Y.	A.B. 1946, A.M. 1947, The George Washington University	
B.S. 1948, Rutgers University		Loomis, Jerome Lathrop	Wis.
A.M. 1949, Columbia University		B.S. in Ed. 1936, Whitewater College	
Levy, Donald	D.C.	A.M. 1942, Northwestern University	
B.S. 1947, University of Maryland		Lopez, Cornelio Orial	Md.
Levy, Harry	N.J.	A.B. 1927, State University of Iowa	
B.M.E. 1936, New York University		Loren, Phyllis C.	Minn.
M.S. 1946, Stevens Institute of Technology		Losche, Herold Homer	Ind.
Lewis, Arnold Charles	N.Y.	A.B. 1935, Hanover College	
B.S.S. 1937, College of the City of New York		Lott, Fred Eli	N.Y.
Lewis, George Allan	Pa.	A.B. 1947, A.M. 1948, Syracuse University	
A.B. 1950, Wilkes College		Louk, Ralph Glyn	Va.
Lewis, Harry Frank	W.Va.	Love, James William	Pa.
A.B. 1939, West Virginia University		Lowe, Ira Melvin	Mass.
Lhamon, George Marion	Calif.	LL.B. 1948, The George Washington University	
B.S. 1939, United States Naval Academy		Lowman, David Daniel	Wash.
J.D. 1949, The George Washington University		A.B. 1949, Stanford University	
L'Hommedieu, Samuel Joseph, Jr.	D.C.	Loy, John Irving	Calif.
B.S. 1949, University of Maryland		A.B. 1942, University of California at Los Angeles	
Light, E. Jerry	Pa.	Loys, Maria Luisa	Cuba
B.S. in E.E. 1946, Columbia University		Dr. in Law 1940, University of Havana	
Liken, Robert Lee	Okla.	Lucas, Charles William	Va.
Liljenquist, L. Blaine	Idaho	Luck, William Bryant	Va.
B.S. 1938, University of Idaho		A.B. 1948, University of Richmond	
Lindamood, Joseph Ganam, Jr.	Md.	Lukens, Frederick	Idaho
A.B. 1943, University of Maryland		A.B. 1947, University of Idaho	
		Lund, Theodore J.	N.Y.
		B.M.E. 1948, College of the City of New York	



Lund, Van Metre	Iowa	Manning, Glenn Franklin	Ala.
B.S. 1944, Iowa State College		LL.B. 1948, University of Alabama	
Lund, Wilbur Herman	Minn.	Marfing, Charles A.	D.C.
A.B. 1938, Gustavus Adolphus College		A.B. 1930, Pennsylvania State College	
A.M. 1942, University of Minnesota	Wash.	M.S. 1949, Columbia University	Calif.
Lundgren, Henry Willard	Md.	Margolis, Nicholas John	D.C.
Lundquist, George Arthur		Margolis, Joel	
B.S. 1948, University of Maryland	D.C.	B.S. 1948, University of Maryland	Puerto Rico
Lundy, Julian Percy		Mari-Bras, Juan	
A.B. 1949, The George Washington University	D.C.	A.B. 1949, Florida Southern College	N.C.
Lung, Ernest Hezakiah	D.C.	Markham, Charles Buchanan	
B.S. 1938, University of Maryland		A.B. 1945, Duke University	D.C.
Luther, Elmer Eugene	Mo.	Markovich, Mike	
A.B. 1949, The George Washington University		B.S. 1949, Georgetown University	N.J.
Lutz, Charles Lester	Tenn.	Markowitz, Irving	Md.
A.B. 1941, University of Louisville		Marks, Solomon	
LL.B. 1948, Vanderbilt University		B.S. in Ed. 1937, College of the City of New York	N.Y.
Lyda, James Claude H.	D.C.	Marmor, Alfred Charles	W.Va.
A.B. 1948, The George Washington University		Marshall, Charles Lance, Jr.	
Lynch, John William	Md.	B.S. in E.E. 1949, Purdue University	Va.
Lynch, William Charles	Va.	Martin, Daniel Walter	Md.
		Martin, Harry Robert	
		A.B. 1949, University of Puerto Rico	Md.
		Martin, Leyland Myers	
		B.S. 1934, University of Arkansas	Pa.
		Martin, Luther Nunemaker	
		B.S. 1949, University of Missouri	Va.
		Martin, Marshall Alden, Jr.	Ohio
		Martin, Richard Alton	Mo.
		Martin, Robert William, Jr.	
		A.B. 1949, Southwest Missouri State Teachers College	Ill.
		Martin, Thomas Archie	
		A.B. 1949, The George Washington University	Va.
		Martin, Watt Nicholas	Va.
		Martin, Wayne Francis	Pa.
		Martini, Anthony Francis	
		A.B. 1948, The George Washington University	Va.
		Marvey, Adolph Louis	Ala.
		Mashburn, Thomas Vincent	
		B.S. 1947, University of Alabama	D.C.
		Mason, William Bullard	
		A.B. 1949, Dartmouth College	N.Y.
		Mates, Edward I.	
		A.B. 1939, Brooklyn College	D.C.
		Mathias, Richard Bingham	Tenn.
		Mathis, William Lowrey	
		B.S. in M.E. 1947, Duke University	Mich.
		Mattern, Roy Edwin, Jr.	
		B.S. in M.E. 1942, LL.B. 1948, University of Michigan	Ind.
		Matthews, Jack Kean	
		B.S. 1949, Rose Polytechnic Institute	D.C.
		Mattson, Arthur Richard	Pa.
		Matusic, Frank	Pa.
		Maurer, George Joseph	D.C.
		May, Thomas James	
		A.B. 1949, The George Washington University	Md.
		Mayberry, Lawrence Edgar	D.C.
		Mayer, Robert Charles	
		B.S. 1948, Georgetown University	Calif.
		Mayes, Basil Lamar	Wis.
		Mazalewski, Raymond Adam	
		Ph.B. 1938, LL.B. 1941, Marquette University	Va.
		Mazza, Louis Francis	D.C.
		McBride, Willard C.	
		B.S. 1948, University of Maryland	

## M



McBurnett, Roe David, Jr. B.S. in E.E. 1944, Georgia Institute of Technology	Tenn.	McKinley, Royce Baldwin A.B. 1942, University of Michigan LL.B. 1948, Harvard University	Md.
McCarthy, Daniel Francis B.S. 1936, University of New Hampshire	N.H.	McLaughlin, William Francis A.B. 1943, Swarthmore College	Va.
McCarthy, Mary Ellen A.B. 1947, Duke University	D.C.	McLaurin, Lillian Catherine A.B. 1937, LL.B. 1939, Vanderbilt University	Miss.
McCarty, Charles Dennis B.S. in M.E. 1941, Northeastern University	D.C.	B.S. in L.S. 1941, George Peabody College for Teachers	
LL.B. 1948, Boston University		McLean, Charles Graham A.B. 1948, The George Washington University	N.C.
McCeney, Buchanan Houston	D.C.	McLees, John Skelton	Ark.
McClellan, LaVonne Hedeon A.B. 1947, The George Washington University	Iowa	McLoud, Clovis Fred A.B. 1949, The George Washington University	Okla.
McCloskey, Sylvester John A.B. 1949, The George Washington University	Pa.	McMahan, Hardy Lee, Jr. B.S. 1948, Michigan State College	Tenn.
McClure, Rex Clark	D.C.	McMullen, Thomas Richard A.B. 1946, The George Washington University	D.C.
McClure, William Pendleton B.S. 1949, University of Pennsylvania	D.C.	McNally, Marietta Clara B.S. 1947, Temple University	Pa.
McConnel, Mary Alice A.B. 1932, Hollins College	Fla.	McNamee, Patience E. A.B. 1944, Immaculate Heart College	Nev.
McConnell, Elisha Riggs A.B. 1929, Davidson College LL.B. 1934, University of Virginia	D.C.	McNeil, George Elroy, Jr. A.B. 1942, The George Washington University	Md.
McCool, Cornelius Joseph	Pa.	McOwen, John Joseph A.B. 1949, Marshall College	D.C.
McCoy, William, Jr. A.B. 1943, Washington and Lee University	W.Va.	McPherson, James Willis, Jr. LL.B. 1949, The George Washington University	Ohio
McCullough, Frank Witcher, Jr. A.B. 1943, Tulane University	W.Va.	McQueen, Robert Keith A.B. 1945, The George Washington University	Iowa
McCullough, William Harrison	Md.	McRae, John Edwin B.Ch.E. 1948, University of Detroit	Md.
McDaniel, John Bennett B.E.E. 1946, University of Louisville	Ky.	Mears, John Stephen, Jr. A.B. 1949, The George Washington University	Ind.
McDermott, William Thomas B.S. 1935, University of New Hampshire	Mass.	Meerkreebs, Samuel B.E.E. 1942, University of Toledo	Ohio
M.S. in Ed. 1936, Boston University		Mellen, David Ralph Mellen, Robert David A.B. 1949, The George Washington University	N.Y. Va.
McDill, Thomas Kapp A.B. 1948, Miami University	Ohio	Melvin, Flavell Bryan, Jr. Mendelsohn, Sydney Henry	Va. Pa.
McDonough, Raymond John	N.Y.	Mercer, Joseph Jackson, Jr. A.B. 1948, Emory University	Ga.
McDonough, Russell Charles	Mont.	Mercogliano, Charles Eugene Metcalfe, Richard A.B. 1947, A.M. 1948, University of Denver	D.C. D.C.
McElroy, Virgil Maurice A.B. 1936, LL.B. 1938, University of Kansas	Kans.	Metzger, Clyde Christian B.S. 1948, Pennsylvania State College	Pa.
LL.M. 1949, The George Washington University		Meyer, Lucille W. Meyers, Leonard Bernard	Tex. D.C.
McFarland, Edgar Elijah, Jr.	W.Va.	Meyrowitz, Alvin Abraham A.B. 1938, Cornell University M.B.A. 1941, New York University	N.Y.
McGee, Charles Edward B.S. in Ed. 1934, North Illinois State Teachers College	Ill.	Meyrowitz, Leon A.B. 1949, The George Washington University	Md.
McGill, George A.B. 1945, Furman University	Md.	Michaud, Lewellyn Richard	Maine
McGinnis, Robert Allen	D.C.	Mickler, Thomas Albert	Pa.
McGowan, Melvin Joseph A.B. 1949, Coe College	Iowa	Mihall, John J. A.B. 1949, Franklin and Marshall College	Pa.
McGrail, Edward Hugh A.B. 1943, St. Peter's College LL.B. 1948, Georgetown University	N.J.	Miho, Katsugo A.B. 1949, University of Hawaii	Hawaii
McGurkin, James Joseph A.B. 1949, The George Washington University	Va.		
McIntyre, Ernest Richard	D.C.		
McKay, Joseph Patrick	Mass.		
McKee, James Oakes A.B. 1942, Knox College	Ill.		
McKeel, Charles Baynor	N.C.		
McKeon, Arthur Thomas B.M.E. 1948, Stevens Institute of Technology	D.C.		



Milby, Katherine Rebecca B.S. 1937, Farmville State Teachers College, Va.	D.C.	Mooney, Patricia Ann A.B. 1941, Texas College of Mines A.M. 1944, East Texas State Teachers College	Tex.
Mileur, Alfred Donald	Okla.	Ph.D. 1946 Cornell University	
Milfelt, William Benjamin	Mo.	Mooney, Robert James	Conn.
Miller, Edwin Cyrus A.B. 1949, Muhlenberg College	Pa.	B.E.E. 1942, Yale University	
Miller, Herbert John, Jr. A.B. 1948, The George Washington University	Minn.	Moore, Arthur Daniel B.S. 1949, East Tennessee State College	Tenn.
Miller, Ida Schuppin A.B. 1947, The George Washington University	D.C.	Moore, Boyd Guerry	D.C.
Miller, Leland Henry A.B. 1942, State College of Washington	Calif.	Moore, Charles Clifton, Jr.	D.C.
Miller, Melvin Eugene	Pa.	Moore, Jack Martin A.B. 1949, The George Washington University	Md.
Miller, Robert Preston B.S. in M.E. 1943, Cornell University	N.Y.	Moore, Jesse Myatt	Ark.
Miller, Rodney Arthur A.B. 1949, University of Pennsylvania	Md.	Moore, Stewart Fawcett A.B. 1943, Bethany College B.S. 1948, Carnegie Institute of Technology	W.Va.
Miller, Roy Hamilton	D.C.	Moore, Waldo Hawthorne	Va.
Miller, Theodore Arnold	Pa.	Moorefield, Carlton Swain	N.C.
Miller, Virginia Jane A.B. 1945, College of Wooster	Mass.	A.B. 1949, Lenoir-Rhyne College	
Miller, William Francis A.B. 1949, The George Washington University	Pa.	Moorefield, Courtney Marshall B.S. in M.E. 1949, University of Illinois	N.Y.
Milligan, William Francis, Jr. A.B. 1949, Colgate University	N.Y.	Morales-Yordan, Jorge A.B. 1948, University of Puerto Rico	D.C.
Millis, Hugh Lowell, Jr. B.S. in E.E. 1945, Southern Methodist University	Tex.	Moran, Leon James LL.B. 1949, The George Washington University	Conn.
M.S. in E.E. 1947, University of Texas		Moran, Leroy A.B. 1949, Lynchburg College	Va.
Millman, Max Roland B.S. 1937, College of the City of New York	N.Y.	Mordas, George	N.J.
Mills, James R., Jr. LL.B. 1937, DePaul University	Ill.	Morgan, Don Earle	Ky.
Mills, Mary Louise A.B. 1945, Bryn Mawr College	N.Y.	Morgan, Glenn Franklin, Jr.	D.C.
Millsop, Keith Duane A.B. 1948, Grove City College	Pa.	Morgan, John Edward	Md.
Minnick, John Bradley A.B. 1935, Amherst College	Va.	Morgan, John Hamilton	D.C.
Misey, Edward Gabriel A.B. 1942, A.M. 1945, University of Wisconsin	Wis.	Morgan, Walter Lee, Jr.	D.C.
Miskovsky, Milan Carl B.S.F. 1948, M.F. 1949, University of Michigan	Ill.	Morgenstein, Harvey Norman B.S. 1949, University of Maryland	Md.
Mitchell, Charles Bradford Ph.B. 1928, A.M. 1929, Wesleyan University	D.C.	Moritz, Andrew Bruce A.B. 1942, University of South Dakota	S.D.
A.M. 1938, Ph.D. 1939, Harvard University		Morley, John Royal	N.J.
Mitchell, Edward Alexander A.B. 1943, University of Virginia	D.C.	Morrell, Leo Gregory B.S. 1947, Georgetown University	Pa.
Modance, Walter Aaron B.S. 1938, College of the City of New York	N.Y.	Morris, Jack Curtis A.B. 1949, Columbia University	Ill.
Modlin, Philip Hodgkin A.B. 1947, High Point College	N.C.	Morris, Lewis Dawson	Va.
Mogul, Rubin A.B. 1948, Pennsylvania State College	Pa.	Morrison, Howard Irwin	N.Y.
Mohr, Paul James	N.Y.	Morrison, Philip Hapworth B.S. 1949, University of New Hampshire	Maine
Moloney, John Francis B.S. 1948, Georgetown University	Ill.	Morrison, William Llewelyn B.S. 1939, United States Coast Guard Academy	N.J.
Moody, William Augustus	Tenn.	Morrissey, Raymond Moss, Sidney J. A.B. 1948, The George Washington University	D.C.
		Mowry, Boardman Shaw B.S. in C.E. 1940, Purdue University	N.Y.
		Mulhearn, Rupert Albert	Ill.
		Mull, John Clifford	R.I.
		Muller, Raymond Carl B.S. 1949, University of Maryland	N.C.
		Mullin, Eugene Francis, Jr. A.B. 1945, Brown University	D.C.
		Mullinnix, Allen Prather B.S. 1919, United States Naval Academy	D.C.
		M.S. 1926, Yale University	Ind.



Mundy, John Leo	Pa.	Norris, Lawrence Geoffrey	Ill.
A.B. 1948, Lafayette College		B.S. 1947, University of Illinois	
Munroe, Alfred A.	Kans.	Norvell, Robert Joseph	Wis.
A.B. 1946, Municipal University of Wichita		B.S. 1947, University of Wisconsin	
A.M. 1947, Syracuse University		Nott, Joseph George	Va.
Munves, William	Va.	Novakovich, Nada	Nev.
A.B. 1932, College of the City of New York		Nowlin, Joe Franklin	Ark.
J.D. 1936, New York University		LL.B. 1949, University of Arkansas	
Murphy, Harry Lee	Pa.	Nunn, Frances Louise	D.C.
B.S. 1949, Grove City College		A.B. 1948, Vassar College	
Murphy, John Ancona	D.C.	Nutter, Joseph William, Jr.	R.I.
B.S. 1948, Georgetown University		A.B. 1947, Yale University	
Murphy, John Jay	Nev.	Nyhagen, Donald Richard	D.C.
Murphy, Joseph Patrick	Va.	B.S. 1944, University of California	
A.B. 1949, The George Washington University		O	
Murphy, Robert Bernard	Wis.	O'Brian, Edward Day	Iowa
Murray, Herbert Henry	Md.	B.S. 1947, Iowa State University	
B.M.E. 1948, The George Washington University		O'Brian, Paul William, Jr.	D.C.
Murray Richard Charles, Jr.	D.C.	A.B. 1948, University of North Carolina	
Murrish, Everett Clark	Ohio	O'Brien, James Dennis	Iowa
A.B. 1947, Harvard University		O'Brien, William John	Mass.
Murtha, Edward	D.C.	B.S. 1942, Tufts College	
A.B. 1949, Waynesburg College		O'Connell, Edward, Jr.	Ala.
Musselman, Ashby Milton	D.C.	A.B. 1940, University of Michigan	
B.S. 1947, University of Maryland		O'Connell, John Joseph	Va.
Myres, Charles Ernest	Tex.	O'Connor, Charles Frederick	Va.
A.B. 1942, Rice Institute		A.B. 1948, The George Washington University	
Naecker, Priscilla M.	D.C.	M.B.A. 1949, University of Pennsylvania	
Nail, Edwin Starkey	Okla.	Oda, Robert Yasuo	Hawaii
Nakashima, Sumio	Hawaii	O'Dea, Thomas Emmett	D.C.
Nalls, John Willard, Jr.	Md.	Odza, Hugh Malcolm	Pa.
Narrow, Wiley	D.C.	A.B. 1947, Pennsylvania State College	
LL.B. 1943, The George Washington University		Ofelt, George Richard	Va.
Neeley, Arthur Call	Conn.	B.S. in E.E. 1927, University of Minnesota	
B.S. 1948, Columbia University		O'Flaherty, Daniel Fairfax	Va.
Nelson, Merle Ellsworth	D.C.	LL.B. 1949, The George Washington University	
A.B. 1949, University of Minnesota		Oglesby, Nicholas Ewing, Jr.	N.Y.
Nelson, Robert Eugene	Md.	B.S. 1943, M.S. 1947, Renssalaer Polytechnic Institute	
A.B. 1941, Cornell College		O'Hara, Joseph Patrick	Minn.
A.M. 1942, Columbia University		A.B. 1948, The George Washington University	
Nelson, Robert George	D.C.	O'Hazza, Francis Edward	Pa.
Nershi, Michael Thomas	N.J.	A.B. 1949, Pennsylvania State College	
A.B. 1949, The George Washington University		O'Leary, Rawlin Eugene	Utah
Nesbit, Mary Katherine	D.C.	Olinger, James Milum, Jr.	Va.
A.B. 1933, The George Washington University		A.B. 1949, Emory and Henry College	
Netterville, Victor S.	Ind.	Olmert, Robert Francis	D.C.
A.B. 1947, Indiana University		Ortolani, Frank Richard	Pa.
Nevin, John Irving	N.Y.	B.S. 1944, B.S. in Ch.E. 1948, Pennsylvania State College	
Newhouse, Leroy Clark	Md.	Osann, Robert	Va.
Newlin, Joseph Homan	Pa.	B.Ch.E. 1943, Renssalaer Polytechnic Institute	
A.B. 1942, LL.B. 1948, The George Washington University		Osborn, Austin Godfrey	N.J.
Newmyer, Armand	D.C.	B.S. 1950, University of Notre Dame	
Nichols, Louis	D.C.	Osheroff, Milton	N.Y.
Nichols, Warren James	Md.	B.S. 1939, College of the City of New York	
A.B. 1949, The George Washington University		Ostatnik, Stephen Frederick	N.J.
Nikoloric, Suzanne Mills	Va.	A.B. 1949, Wittenberg College	
Nisson, George Wendell	Md.	Ottenstein, Victor H.	D.C.
Nolte, Carl Robert, Jr.	D.C.	B.S. in Econ. 1948, University of Pennsylvania	
A.B. 1948, College of William and Mary			
Noone, Anthony	Calif.		
Norman, George	Md.		
A.B. 1947, Western Maryland College			
LL.B. 1949, University of Maryland			



Otterman, Harvey Boyd	Vt.	Peartree, Frank Theodore	N.J.
A.B. 1949, The George Washington University		A.B. 1949, William Jewell College	D.C.
Owen, George M.	D.C.	Peisner, Arthur A.	D.C.
Oxendine, Heavord Dobber	N.C.	Pelham, David Elliot	D.C.
Oxholm, Axel Waldemar	Wash.	B.S. 1931, Tufts College	D.C.
A.B. 1949, The George Washington University		Pellerzi, Leo Maurice	D.C.
		LL.B. 1949, The George Washington University	
		Pendergast, Charles William	W.Va.
		Pendergrass, John Mullard	Va.
		A.B. 1945, Kalamazoo College	
		M.P.A. 1946, Wayne University	
		Pendleton, Edmund E., Jr.	D.C.
		B.S. 1942, University of Pennsylvania	
		LL.B. 1948, Georgetown University	
		Pendleton, George Cassity	D.C.
		B.S. 1942, University of Maryland	
		LL.B. 1948, Georgetown University	
		Pennyan, Lola	Miss.
		Perenich, Margaret Lucy	Md.
		A.B. 1945, Trinity College	
		Perez, Horace Hugo	D.C.
		B.S. 1946, Louisiana State University	
		Perkins, Alfred William, Jr.	D.C.
		Perros, George Peter	D.C.
		A.B. 1940, The George Washington University	
		Perry, Elena Victoria	D.C.
		A.B. 1948, Hunter College	
		Perry, Robert Charles	Miss.
		Perry, Thomas Daniel	N.Y.
		A.B. 1949, LL.B. 1949, University of Buffalo	
		Petersen, Stanley Wilhelm	N.Y.
		A.B. 1942, The George Washington University	
		Peterson, Charles David	Maine
		A.B. 1948, Harvard University	
		Petkovich, Samuel	Ohio
		Peto, John	N.J.
		B.S. 1947, College of the City of New York	
		Pettigrew, W. B.	Va.
		B.S. 1933, Maryville State Teachers College, Md.	
		Pfeiffer, Frederick Thompson	D.C.
		A.B. 1947, University of North Carolina	
		Phelan, Catherine Elizabeth	Wyo.
		A.B. 1936, Clarke College	
		Phelan, Patrick John	Va.
		Phelps, Allen Warner	D.C.
		Pherson, John Randolph	D.C.
		A.B. 1948, The George Washington University	
		Phillips, Gordon Allison	Ark.
		Ph.B. 1947, University of Chicago	
		Phillips, Samuel Lafayette	Md.
		Philpitt, Frederick Charles	D.C.
		B.S. in Ch.E. 1947, University of Maryland	
		Pickens, John Kenneth	D.C.
		A.B. 1939, LL.M. 1949, The George Washington University	
		LL.B. 1947, Harvard University	
		Pickering, Leonard Leroy	Okla.
		Piczak, Walter Alfred	Pa.
		A.B. 1949, Wilkes College	
		Pierce, James Baker	Mich.
		B.S. in E.E. 1943, University of Michigan	



Pincus, Arthur	D.C.	Queisser, Richard Curtis	Va.
A.B. 1948, The George Washington University		B.S. in E.E. 1937, New York University	
Pincus, William	N.Y.	Quenstedt, Warren Daley	D.C.
A.B. 1941, Brooklyn College		Quigley, Calvin Carlyle	Va.
A.M. 1948, American University		A.B. 1948, University of Colorado	
Pinkham, Richard Collins	Md.		
B.S. in Ch.E. 1948, Northeastern University			
Pletcher, Ralph Weldon	D.C.		
B.S. 1948, University of Maryland			
Plyer, Alfred Hutchinson, Jr.	Tex.	Ragsdale, Gerald Hamilton	Mont.
B.S. 1948, Rice Institute		A.B. 1938, Montana State University	
Poage, Jack Pat	W.Va.	Rand, Alice M.	Conn.
B.S. 1949, West Virginia University		A.B. 1935, Wellesley College	
Pollack, Leonard	Pa.	Raring, Frederick William	Pa.
Porter, Ross George	D.C.	B.S. 1949, Lehigh University	
Posner, Leonard Raymond	Conn.	Rasmussen, Frank Joseph	Md.
A.B. 1939, University of Connecticut		B.S. in M.E. 1939, University of Illinois	
LL.B. 1942, Yale University		Rath, Robert Karl	Ohio
Postman, Martin Samuel	D.C.	Ratliff, William Richard	Va.
B.S. in E.E. 1946, Virginia Polytechnic Institute		Ratner, Max	D.C.
Poston, Met Ray	Va.	Rea, James Magruder	Md.
B.S. 1942, University of Chattanooga		A.B. 1943, University of Maryland	D.C.
Poston, Raymond Lee, Jr.	Va.	Reagan, James Edwin	Wash.
Poston, Robert Rolland	Va.	Reardon, Barbara Ellen	
B.S. 1934, State University of Iowa		A.B. 1948, University of Washington	
Potter, Ralph E.	D.C.	Rearick, Anderson Melvin, Jr.	Pa.
B.M.E. 1945, The George Washington University		B.S. 1949, Wheaton College	N.Y.
Potter, Thomas Willoughby Jr.	Ill.	Reback, William	N.Y.
B.S. in Ed. 1949, Eastern Illinois State College		Recktenwald, William Elmer	
Pournaras, Stephen William	R.I.	B.S. in M.E. 1948, Purdue University	
A.B. 1942, Brown University		Redd, Lavinia Lindsay	Va.
Powell, John Frederic	Md.	A.B. 1935, Randolph-Macon Woman's College	
Power, Andrew Paul	N.Y.	Redmond, Joseph C., Jr.	Md.
A.B. 1947, The George Washington University		B.S. 1944, Tufts College	
Powers, William L.	Ohio	B.E.E. 1948, The George Washington University	
A.B. 1920, Princeton University		Reed, Hallie Mae	Va.
Poznak, Morton	N.J.	A.B. 1937, The George Washington University	
Pravel, Bernarr Roe	Tex.	Reeder, Ronald Ronson	W.Va.
B.S. in Ch.E. 1947, Rice Institute		A.B. 1940, Shepherd College	
Prendergast, James Francis	Pa.	A.M. 1946, The George Washington University	
A.B. 1938, Lafayette College			
Preslar, Stephen Franklin	Tex.	Rees, Ira Jack	Md.
Preston, Edwin Page	Tenn.	A.B. 1934, Municipal University of Wichita	
LL.B. 1948, Washington and Lee University		LL.B. 1939, University of Oklahoma	
Preston, Walter Harlan	D.C.	Reese, Elmer Louis, Jr.	Md.
Prezis, Samuel B.	N.Y.	B.S. 1942, University of Maryland	
LL.B. 1947, LL.M. 1949 National University		Regula, Elmer Lee	D.C.
Price, James Travis	Tenn.	B.S. 1948, Butler University	
Price, Milo V.	Nev.	Reid, James Sharp	D.C.
Price, Robert Nelson	D.C.	A.B. 1937, Cornell University	
A.B. 1948, Haverford College		Reid, Paul Samuel	Md.
Procaccino, Joseph Anthony		B.S. in E.E. 1944, Virginia Polytechnic Institute	
A.B. 1943, College of the City of New York		Reid, William Grant	Ala.
Pulfrey, Robert Earl	Va.	Reiffin, Martin Gardner	N.Y.
B.S. 1937, Jamestown College		B.M.E. 1945, College of the City of New York	
Putterman, Felix Maurice	Va.	Reilly, George Kenneth Gordon	Wash.
		A.B. 1947, The George Washington University	
		Reising, Paul Joseph	D.C.
		B.S. 1947, Xavier University	
		M.S. 1949, University of Detroit	
		Reitman, Seymour George	N.J.
		Remer, Bertram Robert	D.C.
		B.S. in E.E. 1946, Duke University	

Q

Quarforth, Carl Donald  
B.Ch.E. 1946, University of Virginia  
Queen, Francis Vernon  
A.B. 1941, Berea College



Reque, Robert Russell	D.C.	Robertson, Roger E.	Md.
Reynolds, Chester Forrest	D.C.	B.S. 1942, M.S. 1942, Massachusetts Institute of Technology	D.C.
LL.B. 1949, The George Washington University	N.Y.	Robertson, William George	N.Y.
Reynolds, Gary Stewart	D.C.	B.S. 1948, University of North Carolina	N.Y.
Reynolds, William Lavern	Va.	Robinson, Alfred Arnold	Pa.
Reynolds, William Neville	Pa.	B.S. 1932, Agricultural and Mechanical College of Texas	Pa.
A.B. 1948, The George Washington University	Pa.	Robinson, Armand Irving	D.C.
Rhine, Mary Elizabeth	Pa.	B.S. 1949, Drexel Institute of Technology	D.C.
Rhodes, Robert Garrett	Va.	Robinson, Thomas Adams	D.C.
B.S. 1947, University of Pittsburgh	Md.	Rodenbeck, Frederick Ludwig	D.C.
M.B.A. 1948, University of Pennsylvania	Miss.	A.B. 1940, A.M. 1941, University of Nebraska	Pa.
Rhyne, Brice Wilson	D.C.	Rodgers, James Edwin	N.Y.
Rich, Donald Jenkins	D.C.	Rodgers, John Robert	Va.
Rich, Francis Earl	Mo.	B.S. 1935, Fordham University	Pa.
B.S. 1941, United States Naval Academy	Va.	Rogal, William Walter	Va.
Richards, William Robert	Pa.	Rogers, Harold John	Va.
Richardson, Paul Bryant	Pa.	A.B. 1947, University of Scranton	D.C.
B.S. 1949, Davidson College	Pa.	Rogg, Nathaniel Hyman	Tex.
Richardson, Robert Owen	Mich.	A.B. 1934, A.M. 1935, New York University	Md.
B.S. 1946, Drury College	Pa.	Roller, Frank Coiner	D.C.
Richardson, Thomas Totten	Pa.	B.S. 1949, University of Arizona	Tex.
Richwine, Francis Kost	Pa.	Romero, Mario Saavedra	Tex.
B.S. 1941, Pennsylvania State College	Pa.	A.B. 1938, National University of Mexico	Pa.
LL.B. 1949, The George Washington University	Pa.	Rommel, Wilfred H.	D.C.
Rickards, Herbert Betz	Pa.	B.S. 1937, North Dakota State Teachers College	Fla.
Riddles, Alvin Joseph	Ind.	Rood, George Henry	Fla.
B.E.E. 1949, Catholic University of America	Wyo.	A.B. 1930, University of Florida	Wash.
Ridpath, Robert Vance	Va.	Rooney, William Albert	D.C.
Ries, Carl Gilbert	Mont.	Rosada, Stefan	D.C.
B.S. 1947, University of Wyoming	N.C.	LL.B. 1922, University of Poznan, Poland	N.J.
Riggs, Bradner Charles	W.Va.	Rose, Alan Conrad	N.J.
Riley, Jeremiah Thomas	W.Va.	B.S. 1947, Massachusetts Institute of Technology	Pa.
Ring, Paul Donald	Md.	Rose, Donald Lewis	Pa.
Rissler, Robert Lorain	Md.	B.S. in Ch.E. 1947, Pennsylvania State College	N.Y.
A.B. 1947, Shepherd College	N.Y.	Rosenberg, Seymour Morton	N.Y.
Ritchie, Frederick Monks	Mo.	B.E.E. 1944, College of the City of New York	Ohio
B.M.E. 1949, The George Washington University	D.C.	Rosenberg, William Theodore	D.C.
Ritterpusch, Irvin John	D.C.	Rosenthal, Alan Henry	Pa.
A.B. 1950, University of Maryland	Md.	Ross, Daniel Michael	D.C.
Robbins, Frank Edward, Jr.	N.Y.	A.B. 1946, A.M. 1948, The George Washington University	D.C.
B.Ch.E. 1944, Rennsalaer Polytechnic Institute	Pa.	Ross, Samuel B.	R.I.
Robbins, Glenn Kingsland	Pa.	A.B. 1921, University of Pittsburgh	Pa.
B.S. in Ch.E. 1947, Washington University	Pa.	A.M. 1924, Ph.D. 1931, Columbia University	N.Y.
Roberson, Edwards Pierce	Pa.	Rossi, Henry	N.Y.
B.S. 1939, University of South Carolina	Pa.	A.B. 1949, The George Washington University	Pa.
Roberts, Ben Lomond	Pa.	Rossiter, Samuel Uriah	N.Y.
Roberts, Jennings Nicholas	Pa.	A.B. 1947, Allegheny College	Va.
A.B. 1939, Morris Harvey College	Pa.	Rothberg, Samuel B.	N.Y.
LL.B. 1943, LL.M. 1945, Georgetown University	Pa.	Rothrock, John Allen, Jr.	N.Y.
Roberts, John Summerfield, Jr.	Pa.	B.S. 1945, Northwestern University	N.Y.
B.S. in Chem. 1941, University of Virginia	Pa.	Rotkin, Irving Jacob	N.Y.
Roberts, Lewis Ross	Pa.	B.S. in M.E. 1946, Virginia Polytechnic Institute	S.D.
Roberts, Perry Leonard	Pa.	Roubideaux, Ramon Arthur	D.C.
B.S. 1938, Oklahoma Agricultural and Mechanical College	Pa.	Roudabush, Robert Mackey	D.C.
Roberts, Raymond F.	Pa.	B.S. 1949, University of Maryland	
A.B. 1949, Ohio University	Pa.		
Roberts, Richard E.	Pa.		
Roberts, Richard Mansfield	Pa.		
LL.B. 1948, The George Washington University	Pa.		



Rousar, Edward Everett	Va.	Samuels, Joseph Paul	W.Va.
LL.B. 1949, The George Washington University		B.S. 1946 West Virginia University	Pa.
Rowe, Willis Case	D.C.	Sanchez, Burdette Boardman	D.C.
A.B. 1949, The George Washington University		Sander, Dora	D.C.
Rowitz, Bernard	N.J.	A.B. 1942, Radcliffe College	N.C.
A.B. 1948, Rutgers University		Sanders, Frank Powell	Pa.
Roylance, Donald Carvar	Md.	Sanders, John Albert	
Ruditz, David	N.Y.	A.B. 1948, The George Washington University	N.J.
A.B. 1949, The George Washington University		Sause, Edward Francis	N.J.
Rudman, Gerald Earl	Maine	B.S. 1949, Georgetown University	D.C.
A.B. 1949, University of Maine		Savage, Julian	Miss.
Rue, Gloria Hope	D.C.	Scarborough, James K.	
A.B. 1949, The George Washington University		A.B. 1949, The George Washington University	Va.
Rugen, Barbara Dorsch	D.C.	Scariot, Angelo John	
A.B. 1942, Wooster College		A.B. 1948, The George Washington University	Va.
Russ, Wilbur Joseph	Calif.	Scarritt, Ralph	
A.B. 1950, University of California		A.B. 1941, Denison University	D.C.
Russell, Denver Lee	Ohio	Schaefer, William John	D.C.
A.B. 1947, Mount Union College		A.B. 1949, University of Pittsburgh	D.C.
Russell, Robert Raymond	D.C.	Schaefer, Frederick	
B.S. 1939, United States Coast Guard Academy		B.S. 1925, The George Washington University	
Russell, Thomas Hale	Va.	LL.B. 1928, Georgetown University	Va.
A.B. 1949, Harvard University		Schappert, Joseph Matthew	
Russell, William David	Mo.	A.B. 1948, Queens College	N.Y.
A.B. 1938, LL.B. 1938, University of Missouri		Schattner, Theodore Jacob	
Ruszkiewicz, Joseph Edward	Pa.	A.B. 1941, College of the City of New York	D.C.
B.S. in E.E. 1948 University of Pittsburgh		Schelberg, William Vincent	
Rutledge, Jean Ann	D.C.	B.S. in E.E. 1935, Louisiana State University	N.C.
A.B. 1947, Indiana University		Schenck, Joseph Samuel	N.J.
Rutledge, John	Va.	Scherback, William John	
Ryan, Burton Thomas	N.Y.	B.S. in E.E. 1946, University of Wisconsin	Pa.
Ryan, Charles Patrick	Pa.	Schiller, David Mulford	
Ryan, James Anthony	Vt.	B.S. in E.E. 1948, Carnegie Institute of Technology	Md.
B.S. 1940, College of the Holy Cross		Schink, Harry Charles	
LL.B. 1947, Cornell University		B.S. in Ch.E. 1942, Carnegie Institute of Technology	Pa.
Ryan, John Clifford	D.C.	Schmertz, Robert Colgan, Jr.	
A.B. 1947, Iona College		B.S. in E.E. 1943, Princeton University	D.C.
Ryan, John Thomas	W.Va.	Schneiberg, Rosalyn	
A.B. 1948, West Virginia University		A.B. 1949, The George Washington University	Mich.
Ryan, Robert Edwin	Pa.	Schneider, Edwin Roy	
Rymer, Thomas Arrington	Md.	A.B. 1948, University of Michigan	N.J.
B.C.E. 1948, Cornell University		Schneider, Walter Henry	
Saccardi, Clarence Richard	D.C.	B.S. 1943, Virginia Polytechnic Institute	D.C.
Sadowsky, Gersten	N.Y.	Schoenfeld, John Short Reid	
B.M.E. 1947 College of the City of New York		A.B. 1949, Washington and Lee University	Nebr.
Sadur, Marvin Phillip	D.C.	Scholtz, Edward Karl	Md.
A.B. 1947, The George Washington University		Schonberg, David	
Saffitz, Abraham Alan	N.Y.	B.S. 1940, Brooklyn College	Va.
A.B. 1936, Cornell University		Schonberger, Eugene	D.C.
St. John, Charles Richard	Ohio	Schrier, Edward	
A.B. 1948, University of Akron		B.S. 1949, University of Maryland	Va.
Sakai, Hiroshi	Hawaii	Schroeder, Frederick John	
Salladay, David Eugene	Wyo.	B.S., United States Naval Academy	Va.
Salter, Elliot Arnold	R.I.	M.B.A. 1949, Harvard University	
B.S. in Eng. 1945, Brown University		Schuler, Harland Aaron	Va.
Sames, Mary Ann	Mo.	B.S. in B.A. 1948, Georgetown University	N.Y.
A.B. 1947, University of Missouri		Schultz, Herman David	
Samolsky, Myles Stanford	Pa.		
A.B. 1949, Washington and Jefferson College			
Samowitz, Charles S.	D.C.		
B.M.E. 1948, College of the City of New York			



Schultz, John Hooker	Md.	Sherman, William Robert	Ill.
LL.B. 1949, The George Washington University		B.S. 1946, University of Wisconsin	
Schuppin, Eric Adolph	D.C.	Sherwood, James Steck	Va.
Schussler, John D.	D.C.	A.B. 1947, The George Washington University	
B.S. 1930, Gettysburg College		Shields, Carrington	D.C.
Schwartz, Helen Janet	D.C.	A.B. 1931, Randolph-Macon Woman's College	
A.B. 1948, The George Washington University		M.S. 1937, Columbia University	
Schwartzbach, Saul Marvin	D.C.	Shim, Alvin Tong	Hawaii
A.B. 1949, The George Washington University		A.B. 1949, University of Hawaii	
Schwing, Mack Eugene, Jr.	W.Va.	Shindell, Sidney	Conn.
A.B. 1948, West Virginia University		B.S. 1944, Yale University	
Scopi, Rosemary Patricia	D.C.	M.D. 1946, Long Island College of Medicine	
A.B. 1947, Trinity College		Shine, Howard Lawrence	D.C.
Scott, James Davis	Pa.	A.B. 1940, Bowling Green State University	
A.B. 1947, Princeton University		Shingler, Julian James	Ga.
Seaman, Leslie Thomas	N.Y.	B.S. in M.E. 1939, United States Coast Guard Academy	
Secrest, Edgar Lee, Jr.	Tex.	Shingler, William Gendron, Jr.	D.C.
B.S. 1941, University of Georgia		A.B. 1946, University of Missouri	
Sedmak, Michael Edward	Pa.	Shipley, George Edward	D.C.
A.B. 1949, Muhlenberg College		Shoemaker, Francis Dodge	Md.
Seidel, Arthur Harris	N.Y.	B.S. in M.E. 1937, University of Maryland	
B.S. 1942, College of the City of New York		Shoemaker William Robert	Ala.
A.M. 1943, University of Michigan	Wis.	Shookman, Loyd Allen	Ind.
Servais, Raymond Alois		A.B. 1949, The George Washington University	
A.B. 1950, The George Washington University		Shore, Jacob	Ohio
Seybert, Harry David	D.C.	B.S. in M.E. 1946, Illinois Institute of Technology	
Shaffer, Earl Edward	W.Va.	Shotwell, Clark Harding	Va.
Shalowitz, Ernest Maurice	D.C.	Shoup, Wilson Elliott	Ind.
Shank, Robert Edgar	Md.	A.B. 1937, Indiana University	
Shapiro, David	N.Y.	Shryock, Richard Fuller	Md.
Shapiro, Nelson Hirsh	D.C.	A.B. 1939, University of North Carolina	
B.E.E. 1948, Johns Hopkins University		Shugar, Harold Bernard	N.C.
Sharkey, James Francis	Pa.	A.B. 1946, University of South Carolina	
Sharp, Daniel DeWitt	Mass.	Shugart, Elizabeth Wise	W.Va.
B.S. in E.E. 1939, Northeastern University		A.B. 1947, Ohio University	
Shaw, Constance Eleanor	D.C.	Shutkin, Joseph Jerome	Wis.
A.B. 1949, Duke University		A.B. 1947, University of Wisconsin	
Sheble, Walter Franklin	Pa.	Sidwell, James Dudley	Mo.
A.B. 1948, Princeton University		Siegel, Abraham	Calif.
Sheehan, Edward Patrick	Va.	B.S. 1940, College of the City of New York	
A.B. 1949, The George Washington University		Silverman, Aaron	D.C.
Sheeran, James Joseph	N.J.	A.B. 1947, The George Washington University	
Sheeskin, Jacob	D.C.	Siskind, Eliot Irvin	Md.
LL.B. 1949, The George Washington University		A.B. 1948, Johns Hopkins University	
Sheff, Irving	Mass.	Sitler, Willard Stanley	Pa.
A.B. 1948, The George Washington University		B.S. 1938, Pennsylvania State College	
Shelhorse, George Walter	Va.	Sizemore, Harry Daniel	Va.
Sherfy, Laurence Polkinhorn	Md.	A.B. 1949, College of William and Mary	
A.B. 1933, LL.B. 1936 A.M. 1947, The George Washington University		Skalak, Rose	N.Y.
LL.M. 1937, Harvard University		A.B. 1939, Hunter College	
Sheridan, Philip Henry	D.C.	B.S. 1940, Columbia University	
B.S. in E.E. 1944, Worcester Polytechnic Institute		Skelly, George Martin, Jr.	Md.
Sheridan, Philip Regis	Pa.	A.B. 1949, The George Washington University	
A.B. 1949, The George Washington University		Skillman, Douglas Benjamin	Va.
Sherman, Albert Stanley	N.Y.	B.S. 1942, Pennsylvania State College	
A.B. 1943, University of Rochester		Skinner, Henry Ross	Wyo.
Sherman, Benjamin	N.Y.	B.S. 1947, University of Wyoming	
A.B. 1948, New York University		Sloane, Edward Frederick	Md.
Sherman, Fred	Va.		
A.B. 1934, University of Oklahoma			



Small, Grover Lee	D.C.	Spaulding, John Henry	D.C.
A.B. 1949, University of Maryland		A.B. 1949, The George Washington University	
Smigielski, Joseph Francis	Mass.	Spector, Eugene Paul	D.C.
B.S. 1941, Boston College		A.B. 1947, The George Washington University	
Smith, Allen Harold	Pa.	Spector, George	N.Y.
A.B. 1949, Gettysburg College		B.C.E. 1942, M.C.E. 1947, Polytechnic Institute of Brooklyn	
Smith, Chester Horace	Nev.	Spence, Charles E., Jr.	Idaho
Smith, Dudley Burcham	Oreg.	Spielman, Milton Roy	Ohio
B.S. 1945, California Institute of Technology		B.S. 1944, Case Institute of Technology	
Smith, Emory Clark	Tex.	Spinner, J. Robert	Ill.
A.B. 1929, North Texas State Teachers College		Spivey, Thomas Denmuth	Va.
A.M. 1933, University of Texas		A.B. 1940, University of North Carolina	
LL.B. 1937, Southern Methodist University		Springer, Curtis Howe	Ala.
Smith, Frederick Holmes	W.Va.	A.B. 1949, University of Alabama	
A.B. 1943, West Virginia University		Sroka, Edward Andrew	Va.
LL.B. 1949, Washington and Lee University		B.S. 1941, Purdue University	
Smith, George Francis	D.C.	Stacy, Charles Mack	Ark.
Smith, Hugh Edward	N.Y.	B.E.E. 1949, Georgia Institute of Technology	
B.Ch.E. 1947, Rensselaer Polytechnic Institute		Stanley, Earl R.	Okla.
Smith, Jack Albert	N.M.	B.S. 1943, Kent State University	
Smith, Leon	D.C.	LL.B. 1949, The George Washington University	
A.B. 1947, LL.B. 1948, The George Washington University		Stark, John Regan	D.C.
Smith, Robert	N.Y.	A.B. 1938, Cornell University	
Smith, Thomas Warner	D.C.	M.P.A. 1941, New York University	
A.B. 1948, The George Washington University		Stauffer, James Elwood	Calif.
Smith, Tomas Arthur	Md.	A.B. 1940, Franklin and Marshall College	
A.B. 1949, The George Washington University		Steadman, Lewis Tilden	Mich.
Smith, Wallace Morrell	Va.	B.M.E. 1946, Syracuse University	
A.B. 1949, The George Washington University		Steenerson, Palmer Seymore	D.C.
Smith, William Nesbit	Pa.	Stehl, Edward	Md.
B.S. 1933, Bucknell University		A.B. 1949, The George Washington University	
Snyder, Martha Frances	Va.	Stein, Mervin	Pa.
A.B. 1945, LL.B. 1946, LL.M. 1947, The George Washington University		B.S. 1947, B.C.E. 1948, Rensselaer Polytechnic Institute	
Sohl, Walter Wood, Jr.	Ill.	Stein, Stanley	N.Y.
A.B. 1939, DePauw University		A.B. 1949, The George Washington University	
A.M. 1940, Georgetown University		Steinbauer, Walter Henry, Jr.	D.C.
Solomon, Edward Jr.	Pa.	B.S. 1947, Emory and Henry College	
A.B. 1949, Pennsylvania State College		Steinberg, Jules Henry	N.Y.
Solomon, Lewis Jay	N.J.	B.S. 1948, Pennsylvania State College	
Soltow, William Donald, Jr.	Ohio	Steinberger, Hugh Marion	D.C.
B.M.E. 1948, Rensselaer Polytechnic Institute		B.S. 1941, University of Virginia	
Somers, George Britton	Va.	Steiniger, John Francis, Jr.	D.C.
A.B. 1939, University of Richmond		A.B. 1948, LL.B. 1949, University of Kansas	
Soucek, Frank James	Va.	Steiner, Archie Kenneth	Tenn.
B.E.E. 1948, The George Washington University		A.B. 1935, Lincoln Memorial University	
Souther, Arthur Fuller	Va.	B.S. 1936, East Tennessee State College	
Southerland, Elisabeth Lamkin	Va.	M.S. 1940, University of Tennessee	
A.B. 1940, University of Georgia		Steiner, Paul Llewyn	D.C.
Southwell, Paul M.	Va.	Steinert, Leif Magne Emil	N.Y.
A.B. 1940, The George Washington University		Steinmeyer, Robert Jay	D.C.
Sowell, John Broadus	D.C.	B.S. 1943, University of Nebraska	
B.M.E. 1947, Georgia Institute of Technology		Stephens, John	Fla.
Spain, Norman Noah	N.Y.	A.B. 1946, The George Washington University	
A.B. 1946, Brooklyn College		Stephens, William Theodore	Md.
Spangle, Clarence Wilbur	Pa.	Sternberg, Arnold Charles	Mass.
B.E.E. 1945, Yale University		A.B. 1947, University of Wisconsin	
Spann, George Klepfer	D.C.		
Sparks, Edward Dean	Colo.		
B.S. 1946, University of Oklahoma			



Stetson, Richard A.B. 1948, The George Washington University	Md.	Strickler, Richard Gahagan A.B. 1932, Pennsylvania State College	Va. N.Y.
Stetson, Rufus Edwin, Jr. A.B. 1947, Bowdoin College	Md.	Strickman, Louis A.B. 1948, The George Washington University	N.Y.
Stetsoy, John Hewes A.B. 1950, University of Maryland	Md.	Strother, Calvin Arnold A.B. 1947, Harvard University	Okla.
Stevas, Alexander Louis	Pa.	Stuart, Jasper Edwin	Wash.
Stevens, Donald Junior A.B. 1949, Muhlenberg College	Ohio	Stuart, Kenneth Earl	Ind.
Stevens, Joseph Leopold S.J.D. 1935, University of Virginia	Md.	Stubbs, Robert Sherwood	Ala.
Stewart, Clark Berry B.M.E. 1948, Clemson College	Va.	Stultz, Norman Frederick	Mass.
Stewart, David Alfred, Jr.	Miss.	Stultz, Travers David	Md.
Stewart, Francis John A.B. 1948, West Virginia University	Pa.	B.S. 1948, St. Louis University	Md.
Stewart, Rodney Ward A.B. 1933, Carleton College	D.C.	Sturtevant, Alderic Clarence A.B. 1949, The George Washington University	Md.
A.M. 1934, University of Chicago		Styles, Michael Hogan A.B. 1947, A.M. 1949, University of Virginia	Va.
Ph.D. 1938, Harvard University		Sukalo, Charles B.S. 1944, Newark College of Engineering	N.J.
Stewart, William Alex B.M.E. 1949, Rensselaer Polytechnic Institute	N.Y.	Sullivan, Arthur Victor, Jr.	D.C.
Stickney, Bernard B.S. 1938, College of the City of New York	N.Y.	Sullivan, Charles Xavier	R.I.
Stifler, William Warren, Jr. A.B. 1939, Amherst College	Md.	Sullivan, Eugene Francis B.S. 1948, The George Washington University	Md.
Stiles, Meredith N., Jr. A.B. 1946 Amherst College	N.J.	Sullivan, John Christian	Md.
Stilling, Richard Justesen A.B. 1950, University of Maryland	D.C.	Sullivan, Joseph Raymond, Jr. B.S. 1947, Georgetown University	N.J.
Stilson, Lewis Francis	D.C.	Sullivan, Patrick Gerald B.S. 1940, Texas College of Mines and Metallurgy	Tex.
Stitelman, Joseph B.S. in E.E. 1934, Cooper Union	D.C.	Sullivan, Thomas Vincent A.B. 1942, New York University	N.Y.
Stitley, David Wesley B.S. 1949, Pennsylvania State College	Va.	Sullivan, William Franklin	Md.
Stofko, Stephen James, Jr. B.S. 1949, University of Maryland	Pa.	Sumney, Ara Long LL.B. 1940, University of Richmond	W.Va.
Stoll, Ervin Wightman B.S. in B.A. 1947, LL.B. 1948, University of South Carolina	S.C.	A.B. 1946, West Virginia University	Pa.
Stolwein, Walter B.S. 1937, College of the City of New York	Md.	Supinski, John Sures, Charles Stanley A.B. 1947, LL.B. 1949, The George Washington University	D.C.
Stonebraker, Dan A.B. 1947, University of Rochester	N.Y.	Sussholz, Leonard B. A.B. 1948, The George Washington University	N.Y.
Stoner, James Reist B.S. in Econ. 1949, Franklin and Marshall College	Pa.	Sutherland, Henry Clifton B.S. 1942, Virginia Military Institute	Va. D.C.
Stork, Creighton Mitchell A.B. 1949, College of Charleston	S.C.	Swanner, J. Bailey B.B.A. 1949, Howard Payne College	Pa.
Stotts, Johnnie Murl B.B.A. 1949, Stephen F. Austin State Teachers College	D.C.	Swartz, Christian LeFevre B.S. 1937, University of Pennsylvania	Pa.
Stouffer, Edwin Immell, Jr. A.B. 1948, The George Washington University	D.C.	LL.B. 1946, Temple University	Va.
Stoyanov, Sam A.B. 1948, The George Washington University	Ohio	Swayze, Roy Albert	Colo.
Strachman, Philip A.B. 1941, College of the City of New York	N.Y.	Sweeney, James Charles, Jr. B.S. in B.A. 1948, University of Denver	N.J.
LL.B. 1949, Georgetown University		Sweeney, Stuart Hackstaff A.B. 1949, Upsala College	Mass.
Strahan, John Barwick A.B. 1935, LL.B. 1938, Louisiana State University	La.	Sweeney, Vincent Hilary B.S. 1949, Boston College	Pa.
Streb, Samuel Stephen LL.B. 1949, The George Washington University	D.C.	Sweitzer, Henry Becker B.S. 1941, United States Naval Academy	N.J.
	Pa.	Sylvester, Eugene Paul	La.
		Sylvester, Malcolm Duncan B.S. 1925, United States Naval Academy	
		J.D. 1939, The George Washington University	



## T

Taffet, Hana	N.Y.	Thomas, William Franklin	Oreg.
A.B. 1949, The George Washington University		B.S. 1948, University of Oregon	
Tafoya, Ben	Md.	Thompson, Conrad Warden	W.Va.
Tait, Reid Clifford	Md.	B.S. 1948 Marshall College	
Talbot, Charles Edward, Jr.	Va.	Thompson, Curtis Eugene	Va.
A.B. 1948, American University		A.B. 1940, Concordia College	
Talley, James Staton	Va.	Thompson, James Elmer, Jr.	Md.
A.B. 1949, The George Washington University		A.B. 1949, University of Maryland	
Tanner, Thomas Louis, Jr.	Va.	Thompson, Lucius Fred	Ga.
Tanos, James Dimitri	Pa.	LL.B. 1949, The George Washington University	
A.B. 1949, University of Pennsylvania		Thompson, Matthew Charles	Iowa
Taphorn, Joseph Bernard	Ill.	B.S. in Ch.E. 1949, Iowa State College	
B.S. in Agri. 1943, University of Illinois		Thompson, Stanwood	Md.
B.S. in Eng. 1949, The George Washington University		A.B. 1949, State College of Washington	
Tashjian, Lee Charles	Md.	Thompson, Thomas Carlton, Jr.	Md.
A.B. 1949, The George Washington University		B.S. in Econ. 1948, University of Pennsylvania	
Tavennner, Frank Brennan	Va.	Thorniley, Robert Miller	D.C.
LL.B. 1949, The George Washington University		LL.B. 1949, The George Washington University	
Taylor, Andrew Eustace	D.C.	Thornton, Luther, Jr.	D.C.
B.S. in M.E. 1947, Tufts College		A.B. 1950, James Millikin University	
Taylor, Charles Elmer, Jr.	Md.	Thornton, Percy, Jr.	N.C.
B.S. 1948, University of Maryland		Threadgill, Eugene Earl	D.C.
Taylor, Daniel Gerald	D.C.	A.B. 1940, University of Florida	
A.B. 1949, Salem College		LL.B. 1944, Georgetown University	
Taylor, Dyer Justice	D.C.	Threadgill, William James	Miss.
Taylor, Edward Rathbon	D.C.	A.B. 1947, University of Mississippi	
A.B. 1947, Lafayette College		Thurman, John Nelson	Ariz.
Taylor, Harry Earl, Jr.	Md.	B.S. 1949, Georgetown University	
A.B. 1948, The George Washington University		Thurmond, Cornelius Brooks, Jr.	Ga.
Taylor, James D.	Ky.	Tibbott, David Winship	Va.
A.B. 1948, Western Kentucky State Teachers College		B.M.E. 1945, University of Virginia	
Taylor, John Frank	Okla.	Tiley, Edward Henry, Jr.	Va.
A.B. 1936, LL.B. 1939, University of Oklahoma		A.B. 1948 West Virginia University	
Tebeau, John Peter	R.I.	Tillman, Murray	N.Y.
Techner, Martin Richard	Pa.	A.B. 1944, Brooklyn College	
Teltser, Harold Robert	N.J.	Tillmann, Alfred Albert	N.Y.
Tennant, William Samuel, Jr.	S.C.	B.S. 1941, New York University	
A.B. 1948, The Citadel		Tilly, James Lewis	Colo.
Terry, George Mulford	Md.	Townsend, Robert Arnold	Va.
A.B. 1947, The George Washington University		B.S. 1943, Harvard University	
Thackston, Carl Richard	S.C.	Travaglini, Vincent D.	Va.
A.B. 1949, Furman University		Traynor, Raymond Patrick	Ohio
Theobald, Frederick H.	Ky.	B.S. 1948, John Carroll University	
Theophilos George John	D.C.	Treadway, Leon Wesley	Va.
Therault, Rene John	D.C.	Treumann, Walter	Mo.
Thomas, Arthur Russell	D.C.	A.B. 1946 Washington University	
B.S. in M.E. 1946, Virginia Polytechnic Institute		A.M. 1948, University of Chicago	
Thomas, Earl Arunah	D.C.	Triviz, Edward Ernest	N.M.
A.B. 1949, The George Washington University		A.B. 1942, New Mexico College of Agriculture and Mechanic Arts	
Thomas, Eugene Bray, Jr.	Conn.	Tuchmann, Norman	Conn.
A.B. 1943, Wesleyan University		A.B. 1948, The George Washington University	
LL.B. 1949, University of Virginia		Tucker, Lyman Ray	Tex.
Thomas, Frane V.	Fla.	A.B. 1949, The George Washington University	
A.B. 1943, The George Washington University		Tucker, Ralph M.	Nev.
Thomas, Gregory	Md.	Tull, Robert Lewis	D.C.
Thomas, Ralph Leslie	Fla.	A.B. 1949, The George Washington University	
B.E.E. 1947, University of Louisville		Tully, John Montgomery	W.Va.
		Tupman, Wilbur Crandell	D.C.
		B.I.E. 1949, Georgia Institute of Technology	
		Turkal, Donal Lloyd	Md.
		Turner, Clarence William, Jr.	D.C.
		B.S. in M.E. 1947, Purdue University	



Turrou Edward Arnold	Va.	Waldron, Richard Vernell	Ill.
A.B. 1942, LL.B. 1948, The George Washington University		B.S. in Ed. 1938, Southern Illinois Norman University	
Tzarnes, Christ	D.C.	Walker, Dale Bryan	N.M.
A.B. 1948, The George Washington University		Wallick, Robert Daniel	D.C.
U		B.S. in E.E. 1948, B.S. in B.A. 1949, Lehigh University	
Umstead, Lyman John	Pa.	Walsh, James Franklin	D.C.
A.B. 1948, The George Washington University		B.S. 1946, University of Illinois	
Unkenholz, Willard Clifton	D.C.	Waltling, Paul John	Pa.
B.M.E. 1948, College of the City of New York		A.B. 1949, Pennsylvania State College	
Ussery, Harry McRae	Va.	Walton, Herbert James	Va.
Uzzell, Edward Foy, Jr.	N.J.	A.B. 1948, John B. Stetson University	
B.S. 1949, University of North Carolina		Wambach, Richard F.	N.D.
V		A.B. 1948, Duke University	
Vaccaro, Camillo Jimmie, Jr.	D.C.	Warmack, William Davies	D.C.
Vache, Barbara Marie	Ohio	Warner, Brainerd Henry	Md.
A.B. 1949, The George Washington University		B.E.E. 1946, Yale University	
Valenzi Joseph Thomas	N.Y.	Warner, Joan Carol	D.C.
Valler, Horace Joseph, Jr.	N.J.	B.S. 1942, Duquesne University	
B.S. 1948, Hobart College		Warner, Philip Lambert	Va.
Vance, Henry Breckinridge	Md.	A.B. 1948, American University	
A.B. 1948, Washington and Lee University		Washington, Fielding Lewis	Va.
Vance, John Thomas	Md.	LL.B. 1949, The George Washington University	
A.B. 1947, Montana State University		Watanahe, Kazua	Hawaii
Vandermause, Orville Joseph	D.C.	A.B. 1948, University of Hawaii	
B.S. in Ed. 1941, Whitewater State Teachers College, Wis.		Watkins, William Henry	D.C.
Van Deusen, John Ten Eyck	D.C.	B.S. 1940, University of Maryland	
A.B. 1948, Brown University		LL.B. 1949, The George Washington University	
Van Meter, Ellsworth Evans	Va.	Wayland Clarence Raymond	Va.
A.B. 1932, Indiana University		Weare, George Cabot	D.C.
Varoutos, Paul George	Va.	A.B. 1949, University of Maryland	
Vass Richard Branson	D.C.	Weaver, Douglas Price	D.C.
A.B. 1949, The George Washington University		A.B. 1948, The George Washington University	
Venables, Harry Robert	Md.	Weaver, Gilbert Earl	N.C.
A.B. 1949, University of Maryland		A.B. 1948, Lenoir-Rhyne College	
Vidmar, Joseph Ernest	N.Y.	Webb, Jack Bassett	Mo.
A.B. 1938, New York State College for Teachers, Albany, N. Y.		A.B. 1948, University of Kansas	
B.S. in L.S. 1940, Louisiana State University		Webb, Joseph Coates, Jr.	D.C.
Villalon, Edward Gonzales	D.C.	A.B. 1948, The George Washington University	
Villechaize, Jean Andre	D.C.	Weber, Edward Robert	Wis.
Doctor of Laws 1947, University of Paris		B.S. 1940, LaCrosse College	
Vinciguerra, John Vincent	Ohio	B.B.A. 1948, University of Wisconsin	
A.B. 1939, University of Akron		Webster, Edward	Md.
Vitale, Michael Joseph	N.J.	B.S. 1942, University of Maryland	
Vogel, Ralph Henry	Calif.	Webster, John M.	D.C.
B.S. 1946, Harvard University		B.S. 1942, University of Minnesota	
W		LL.B. 1947, The George Washington University	
Wacker, Stella Czuba	Md.	Weed, Norman Broadwell	D.C.
A.B. 1937, Ohio State University		A.B. 1938, Stanford University	
Waddingham, Albert Thorpe	Utah	Weise, Allen Gardner	Md.
Wadsworth, James Leo	Nev.	B.S. 1948, The George Washington University	
A.B. 1948, Brigham Young University		Weissman, Milton	N.Y.
Wagman, Theodore David	Mass.	B.Ch.E. 1939, New York University	
A.B. 1939, A.M. 1940, Boston University		Weker, Simon Louis	Mass.
		A.B. 1934, Harvard College	
		M.S. in Ed. 1938, Boston University	
		Welch, June R.	Tex.
		Wellington, Peretz	N.Y.
		A.B. 1950, The George Washington University	
		Wendt, Carl Morten	Iowa
		A.B. 1937, A.M. 1939, University of South Dakota	
		Wendt, Lucile Burd	S.D.
		A.B. 1942, University of South Dakota	



West, George Bruce	Md.	Williams, Henry Newton	Tenn.
A.B. 1949, Washington and Lee University		B.S. 1937, Middle Tennessee State College	
West, Luther Charles	Ala.	A.M. 1938, University of Tennessee	N.D.
A.B. 1948, Birmingham Southern College		Williams, John Charles	D.C.
Weston, Glen Earl	Md.	Williams, John Marshall	
B.S. 1943, University of Maryland		B.S. 1936, Eau Claire State Teachers College, Wis.	
LL.B. 1948, The George Washington University		Williams, Lawrence Harvey	Va.
Wetherbee, Fairland Henry	Md.	B.S. 1947, University of Minnesota	
Wharry, Llewellyn Russell	Ill.	LL.B. 1948, University of Colorado	
A.M. 1936, State University of Iowa		Williams, Leonard John	Md.
Wharton, Richard Henry	Ohio	Williamson, Daniel Lester, Jr.	Va.
B.S. 1933, University of Dayton		Williamson, John George	Tenn.
M.S. 1946, Ohio State University		A.B. 1948, The George Washington University	
Wheatley, Andy Clarence	Va.	Wilson, Arrah Miner	S.C.
A.B. 1940, Trinity University		A.B. 1945, University of South Carolina	
Wheeler, Arthur Adrian	Mass.	LL.B. 1948, University of Virginia	
Wheeler, Mary Starr	Conn.	Wilson, Howard Owen	W.Va.
A.B. 1916 Wellesley College		Wilson, Leo Earl	D.C.
LL.B. 1949, The George Washington University		B.S. in E.E. 1948, Carnegie Institute of Technology	
Whitaker, Edward Stephen	Tenn.	Wilson, Leonard Merle, Jr.	D.C.
A.B. 1942, King College		A.B. 1949, West Virginia University	
White, Alfred Lawson	D.C.	Wilson, Paul Grier	Va.
White, Everett Edward	N.Y.	A.B. 1950, University of Maryland	
A.B. 1938, Dartmouth College		Wilson, Philip Harold	Ill.
White, Joseph Hill	Va.	B.S. in Ed. 1940, Illinois State Normal University	
A.B. 1948, American University		Wing, Robert Claude	Maine
White, Robert Bellarmine	D.C.	B.S. 1935, United States Naval Academy	
White, Robert Lynn	W.Va.	M.B.A. 1939, Harvard University	
B.S. 1947, Marietta College		Winkelmann, Frederick William	N.Y.
Whitener, Thomas Grady	Md.	J.D. 1937, University of Göttingen, Germany	
Whitesel, James Warren	D.C.	Witcoff, Sheldon William	D.C.
A.B. 1943, Wake Forest College		B.S. 1949, University of Maryland	
J.D. 1948, The George Washington University		Withers, John Lewis	N.C.
Whiting, Donald Oren	D.C.	B.S. 1940, Davidson College	
A.B. 1949, University of Minnesota		A.M. 1941, University of North Carolina	
Whitmore, Charles Warren	Va.	Witherspoon, Fred Lee, Jr.	Md.
M.D. 1947, University of Virginia		B.S. in M.E. 1941, University of Maryland	
Whitmore, Daniel Norman	Nev.	Wohlleben, William McNulty	N.Y.
Whitmore, Sidney Roxton	D.C.	B.M.E. 1942, Clarkson College of Technology	
Whitney, George Ward	N.Y.	Wolfarth, Carlton H.	D.C.
B.E.E. 1949, Rensselaer Polytechnic Institute		A.B. 1950, The George Washington University	
Whittenburg, John Vernor	Tex.	Wolfarth, Charlene D.	Colo.
B.S. in Ch.E. 1948, Rice Institute		A.B. 1943, The George Washington University	
Whitwell, Sanford MacCallum	Pa.	Wolfenson, Jay Warren	D.C.
B.S. 1949, Cornell University		A.B. 1948, The George Washington University	
Whitworth, Lewis Beaman	Md.	Wolfe, Lenard Lee	Pa.
Wichin, Ernest Aaron	N.Y.	A.B. 1948, The George Washington University	
B.B.A. 1942, College of the City of New York		Wolk, Morris O.	Md.
M.B.A. 1945, New York University		B.S. 1936, Cooper Union	
Wicker, George Stanley	Ga.	Wolk, Reuben	Calif.
A.B. 1939, Emory University		B.S. 1938, University of Maryland	
Widman, Charles Louis	D.C.	Wolman, Harold	N.Y.
Widmann, John William	Pa.	B.S. 1942, College of the City of New York	
B.S. 1940 Villanova College		Wong, Wing	N.H.
Wier, Richard Austin	Tex.	LL.B. 1949, The George Washington University	
B.B.A. 1943, University of Texas			
Wiley, Earl Brooks	Ga.		
A.B. 1949, The George Washington University			
Wilkins, Don Frank	Utah		
Willett, John Raymond	Maine		
A.B. 1948, The George Washington University			



Wood, Charles William	Pa.	Y	
LL.B. 1949 The George Washington University		Yabroff, Bernard	Va.
Wood, Harry Eugene	S.C.	B.S.S. 1939, College of the City of New York	
Wood, Thomas Bennett	Ill.	Yadao, Elias Perfecto	Hawaii
Woodard, Calvin	N.C.	A.B. 1949, University of Hawaii	
A.B. 1949, University of North Carolina		Yarnoff, Leroy Mills	D.C.
Woodbury, Wallace Richards	Utah	Yavener, Burton	N.J.
A.B. 1947, University of Utah		Yavil, Minnie	Pa.
Woodhouse, Margaret Wark	Conn.	B.S. 1937, Temple University	
A.B. 1946, University of North Carolina		A.M. 1949, The George Washington University	
Woodhull, John Hawley	D.C.	Yeager, Philip Brand	Va.
B.S. in E.E. 1942, Tufts College		A.B. 1939, University of Arizona	
Woodling, Francis Albert	Pa.	Yim, William Harry	Hawaii
A.B. 1946, The George Washington University		A.B. 1949, University of Hawaii	
Woodmansee, Charles H.	Md.	Yokley, William Ross, Jr.	Ky.
Woods, John George	Va.	Yorty, Robert Bell	Nev.
A.B. 1943, Centenary College		Young, Charles Cooper	Colo.
LL.B. 1949, Georgetown University		LL.B. 1926, University of Denver	
Woods, Robert Ora	Calif.	Young, David	N.Y.
Woodworth Howard Hampton	Md.	B.M.E. 1949, Cooper Union	
B.S. 1942, University of Minnesota		Young, Jack Martin	Ohio
Woolis, William Pape	Va.	B.S. 1943, Case Institute of Technology	
Worley, Richard Bryce	Okla.	Young, Maynard Fling	W.Va.
Wortman, David Morris	D.C.	Yount, Joseph Herman, Jr.	Ohio
A.B. 1948, The George Washington University		A.B. 1948, Oberlin College	
Wray, James Laban	Ark.	Z	
Wright, Berkeley	D.C.	Zabiegalski, Anthony, Jr.	Pa.
Wright, Dale Alan	Tex.	A.B. 1949, Bucknell University	
B.S. 1948, Carnegie Institute of Technology		Zablocki, Clement John	Wis.
Wyatt, John Walton	Fla.	Ph.B. 1936, Marquette University	
B.S. 1938, Troy State Teachers College, Ala.		Zachary, Richard Eugene	D.C.
LL.B. 1947, University of Florida		Zaskalicky, Julius John	Conn.
Wyche, Benjamin Walker	Va.	B.E.E. 1942, Yale University	
B.S. 1943, Virginia Polytechnic Institute		Zazetski Henry Bernard	Pa.
Wyche, Richard T.	Okla.	A.B. 1949, Pennsylvania State College	
A.B. 1938, University of Oklahoma		Zbylut, Chester Anthony	Ill.
Wyman, Alexander	D.C.	A.B. 1950, DePaul University	
B.S. in Ch.E. 1935 Cooper Union		Zeidner, Philip M.	N.Y.
Wymore, Max Lee	Kans.	Zellers, Robert Adam	Fla.
B.S. in Ch.E. 1947, University of Kansas		LL.B. 1949, John B. Stetson University	
		Ziehl, Wilbur H.	Md.
		Zitomer, Joseph	D.C.
		Zuckerman, Martin Jay	N.J.
		Zuppas, Simos	D.C.
		LL.B. 1938, University of Athens, Greece	



## SUMMARIES OF REGISTRATION

SUMMER TERM 1949

FALL AND WINTER TERMS 1949-50

### GEOGRAPHICAL DISTRIBUTION OF STUDENTS

United States, Territories, and Possessions

Alabama .....	17	Nevada .....	15
Arizona .....	3	New Hampshire .....	5
Arkansas .....	10	New Jersey .....	58
California .....	26	New Mexico .....	8
Colorado .....	9	New York .....	204
Connecticut .....	28	North Carolina .....	34
Delaware .....	1	North Dakota .....	5
District of Columbia .....	582	Ohio .....	54
Florida .....	21	Oklahoma .....	21
Georgia .....	13	Oregon .....	5
Idaho .....	6	Pennsylvania .....	130
Illinois .....	47	Rhode Island .....	14
Indiana .....	21	South Carolina .....	12
Iowa .....	16	South Dakota .....	7
Kansas .....	12	Tennessee .....	21
Kentucky .....	13	Texas .....	33
Louisiana .....	6	Utah .....	8
Maine .....	6	Vermont .....	5
Maryland .....	252	Virginia .....	287
Massachusetts .....	44	Washington .....	13
Michigan .....	17	West Virginia .....	43
Minnesota .....	14	Wisconsin .....	15
Mississippi .....	11	Wyoming .....	6
Missouri .....	22	Alaska .....	2
Montana .....	6	Hawaii .....	17
Nebraska .....	10	Puerto Rico .....	2

### Foreign Countries

Belgium .....	1	Germany .....	1
Colombia .....	1	Netherlands .....	1
Cuba .....	2		

### GRADUATES OF COLLEGES REGISTERED IN THE LAW SCHOOL

Agnes Scott College .....	1	Allegheny College .....	3
Akron, University of .....	2	Alma College .....	1
Alabama, University of .....	12	American University .....	12
Alabama Polytechnic Institute ...	1	Amherst College .....	7
Alabama State Teachers College, Troy .....	1	Amsterdam, University of .....	1
Albany Law School .....	1	Arizona, University of .....	2
		Arkansas, University of .....	3



Athens, University of, Greece ...	1	Dartmouth College .....	5
Augustana College .....	1	Davidson College .....	5
Baylor University .....	2	Dayton, University of .....	1
Belgrade, University of .....	1	Denison University .....	1
Berea College .....	1	Denver, University of .....	5
Berlin, University of .....	1	DePaul University .....	4
Bethany College .....	1	De Pauw University .....	1
Birmingham-Southern College ...	1	Detroit, University of .....	2
Boston College .....	2	Dickinson College .....	1
Boston University .....	5	Drake University .....	1
Bowdoin College .....	3	Drexel Institute of Technology..	3
Bowling Green State University..	1	Drury College .....	1
Bradley University .....	1	Dubuque, University of .....	1
Brenau College .....	1	Duke University .....	17
Brigham Young University .....	3	Duquesne University .....	1
Brooklyn, Polytechnic Institute of	1	Earlham College .....	1
Brooklyn College .....	15	East Tennessee State College ...	2
Brown University .....	9	East Texas State Teachers College	1
Bryn Mawr College .....	1	Eastern Illinois State College ...	1
Bucknell University .....	7	Emory and Henry College .....	3
Buffalo, University of .....	3	Emory University .....	3
Butler University .....	2	Evansville College .....	1
California, University of .....	5	Fairmont State College .....	1
California at Los Angeles, Univer-		Farmville State Teachers College,	
sity of .....	6	Va. ....	1
California Institute of Technology	2	Fenn College .....	1
Canisius College .....	1	Florida, University of .....	8
Carleton College .....	1	Florida Southern College .....	2
Carnegie Institute of Technology..	6	Florida State University .....	1
Case Institute of Technology ....	4	Fordham University .....	2
Catholic University of America...	10	Franklin and Marshall College ...	5
Centenary College .....	1	Furman University .....	2
Central College, Mo. ....	1	Gannon College .....	1
Central State College .....	1	George Peabody College for Teach-	
Central State Teachers College,		ers .....	1
Wis. ....	1	George Washington University, The	336
Centre College .....	1	Georgetown University .....	42
Charleston, College of .....	1	Georgia, University of .....	3
Chicago, University of .....	7	Georgia Institute of Technology..	7
Chattanooga, University of .....	1	Gettysburg College .....	5
Cincinnati, University of .....	1	Göttingen, University of, Germany	1
Citadel, The .....	3	Goucher College .....	1
Clark University .....	5	Grove City College .....	2
Clarke College .....	1	Guilford College .....	1
Clarkson College of Technology..	2	Gustavus Adolphus College .....	1
Clemson College .....	2	Hampden-Sydney College .....	2
Cleveland-Marshall Law School ..	1	Hanover College .....	1
Coe College .....	1	Harvard University .....	33
Colgate University .....	3	Havana, University of .....	2
Colorado, University of .....	2	Haverford College .....	1
Columbia University .....	16	Hawaii, University of .....	7
Concordia College .....	1	High Point College .....	1
Connecticut, University of .....	2	Hobart College .....	1
Cooper Union .....	7	Hollins College .....	1
Cornell University .....	22	Holy Cross, College of the .....	2



Howard Payne College .....	1	Michigan, University of .....	17
Hunter College .....	2	Michigan State College .....	5
Idaho, University of .....	4	Middle Tennessee State Teachers College .....	1
Illinois, University of .....	16	Middlebury College .....	1
Illinois Institute of Technology .....	5	Milan State University .....	1
Illinois State Normal University .....	1	Millsaps College .....	1
Immaculate Heart College .....	1	Minnesota, University of .....	12
Indiana State Teachers College, Pa. ....	1	Mississippi, University of .....	1
Indiana University .....	8	Missouri, University of .....	11
Iowa, State University of .....	11	Montana State University .....	4
Iowa State College of Agriculture and Mechanic Arts .....	1	Morris Harvey College .....	1
James Millikin University .....	1	Mount St. Mary College .....	2
Jamestown College .....	1	Mount St. Mary's College .....	1
Javcriana, University of .....	1	Mount Union College .....	2
John B. Stetson University .....	3	Muhlenberg College .....	5
John Carroll University .....	2	National University .....	1
Johns Hopkins University .....	5	Nebraska, University of .....	7
Kalamazoo College .....	1	Nevada, University of .....	1
Kansas, University of .....	9	Newark, University of .....	1
Kansas State College .....	3	Newark College of Engineering ..	1
Kent State University .....	2	New Hampshire, University of ...	6
Kentucky, University of .....	4	New Jersey State Teachers Col- lege, Montclair .....	1
King College .....	1	New Mexico, University of .....	1
Knox College .....	1	New Mexico College of Agriculture and Mechanic Arts .....	2
LaCrosse College .....	1	New York, College of the City of ..	51
Lafayette College .....	6	New York State Teachers College, Albany .....	2
Lehigh University .....	4	New York State Teachers College, Buffalo .....	2
Leiden University .....	1	New York University .....	19
Lenoir-Rhyne College .....	3	Niagara University .....	1
Liege, University of .....	1	North Carolina, University of ...	21
Lincoln Memorial University ....	1	North Carolina College at Durham	1
Long Island College of Medicine ..	1	North Carolina State Teachers College .....	1
Louisiana Polytechnic Institute ..	1	North Dakota State Teachers Col- lege .....	2
Louisiana State University .....	7	North Illinois State Teachers Col- lege .....	1
Louisville, University of .....	4	North Texas State Teachers Col- lege .....	1
Loyola University .....	1	Northeastern University .....	8
Lynchburg College .....	2	Northwestern University .....	4
Maine, University of .....	2	Norwich University .....	1
Major College of the Rosary, Bo- gotá, Colombia .....	1	Notre Dame, University of ....	6
Mansfield State Teachers College ..	1	Oberlin College .....	3
Marietta College .....	3	Ohio State University .....	8
Marquette University .....	2	Ohio University .....	2
Marshall College .....	7	Oklahoma, University of .....	8
Mary Washington College .....	1	Oklahoma Agricultural and Me- chanical College .....	5
Maryland, University of .....	67	Oklahoma City University .....	1
Maryville College .....	1		
Massachusetts, University of ....	1		
Massachusetts Institute of Tech- nology .....	9		
Massachusetts State College .....	1		
Mexico, National University of ...	1		
Miami, University of .....	1		
Miami University .....	6		



Oregon, University of .....	3	Southwest Texas State Teachers	
Oxford University .....	1	College .....	1
Paris, University of .....	1	Southwestern University .....	1
Pavia State University .....	1	Spring Hill College .....	1
Pecs, University of .....	1	Stanford University .....	4
Pennsylvania University of .....	16	Stephen F. Austin State Teachers	
Pennsylvania State College .....	23	College .....	1
Phillips University .....	1	Stevens Institute of Technology .....	3
Pittsburgh, University of .....	8	Susquehanna University .....	1
Poznan, University of, Poland ...	2	Swarthmore College .....	1
Prague, University of .....	3	Syracuse University .....	12
Presbyterian College .....	1	Szeged, University of, Hungary ..	1
Princeton University .....	7	Temple University .....	8
Providence College .....	2	Tennessee, University of .....	4
Puerto Rico, University of .....	2	Texas, Agricultural and Mechan-	
Puget Sound, College of .....	1	cal College of .....	1
Purdue University .....	16	Texas, University of .....	9
Queens College .....	2	Texas Christian University .....	2
Radcliffe College .....	1	Texas College of Mines .....	2
Randolph-Macon Woman's College	2	Texas State College for Women ..	1
Rensselaer Polytechnic Institute ..	13	Thiel College .....	1
Rhode Island College of Education	1	Toledo, University of .....	2
Rhode Island State College .....	2	Transylvania College .....	1
Rice Institute .....	4	Trinity College .....	5
Richmond, University of .....	5	Trinity University .....	1
Roanoke College .....	2	Tufts College .....	9
Rochester, University of .....	7	Tulane University .....	4
Roosevelt College .....	1	Tulsa, University of .....	1
Rose Polytechnic Institute .....	2	Union College .....	2
Rutgers University .....	8	United States Coast Guard Acad-	
St. Ambrose College .....	1	emy .....	7
St. Bonaventure College .....	1	United States Military Academy ..	6
St. Francis College .....	1	United States Naval Academy ..	15
St. John's College .....	2	Upsala College .....	1
St. John's University, N. Y. ....	1	Utah, University of .....	4
St. John's University, Shanghai ..	1	Utrecht, University of .....	1
St. Louis University .....	1	Vanderbilt University .....	2
St. Martin College .....	1	Vassar College .....	2
St. Paul College of Law .....	1	Villanova College .....	2
St. Peter's College .....	1	Virginia, University of .....	22
Salem College .....	1	Virginia Military Institute .....	4
Scranton, University of .....	5	Virginia Polytechnic Institute ...	11
Seton Hall College .....	1	Wake Forest College .....	1
Shepherd College .....	2	Washington, State College of ....	3
Shorter College .....	1	Washington, University of .....	7
Siena College .....	1	Washington and Jefferson College	2
Smith College .....	1	Washington and Lee University ..	11
South Carolina, University of ...	9	Washington College of Law .....	1
South Dakota, University of ...	4	Washington University .....	4
Southeastern Louisiana College ..	1	Wayne University .....	3
Southern California, University of	1	Waynesburg College .....	1
Southern Illinois Normal University	1	Wellesley College .....	3
Southern Methodist University ..	2	Wesleyan University .....	4
Southwest Missouri State College	1	West Virginia University .....	21



Western Kentucky State Teachers College .....	1	Wisconsin State Teachers College, Whitewater .....	2
Western Maryland College .....	3	Wittenberg College .....	1
Western Reserve University .....	4	Wooster, College of .....	2
Western State College of Colorado .....	1	Worcester Polytechnic Institute..	5
Wheaton College, Ill. ....	2	Wyoming, University of .....	2
Wichita, Municipal University of ..	4	Xavier University .....	1
Wilkes College .....	3	Yale University .....	20
William and Mary, College of ...	4	Yankton College .....	2
William Jewell College .....	1		
Wilson College .....	1		
Wisconsin, University of .....	11	Number of college graduates	1,519
Wisconsin State Teachers College, Eau Claire .....	1	Number of colleges represented	340

## SUMMARY OF REGISTRATION

1949-50

	Men	Women	Total
First year .....	860	63	923
Second year .....	543	30	573
Third year .....	448	18	466
Candidates for the degree of Master of Laws .....	202	4	206
Candidates for the degree of Master of Comparative Law ..	16	2	18
Candidates for the degree of Doctor of Juridical Science ..	12	0	12
Unclassified .....	43	1	44
Total .....	2,124	118	2,242



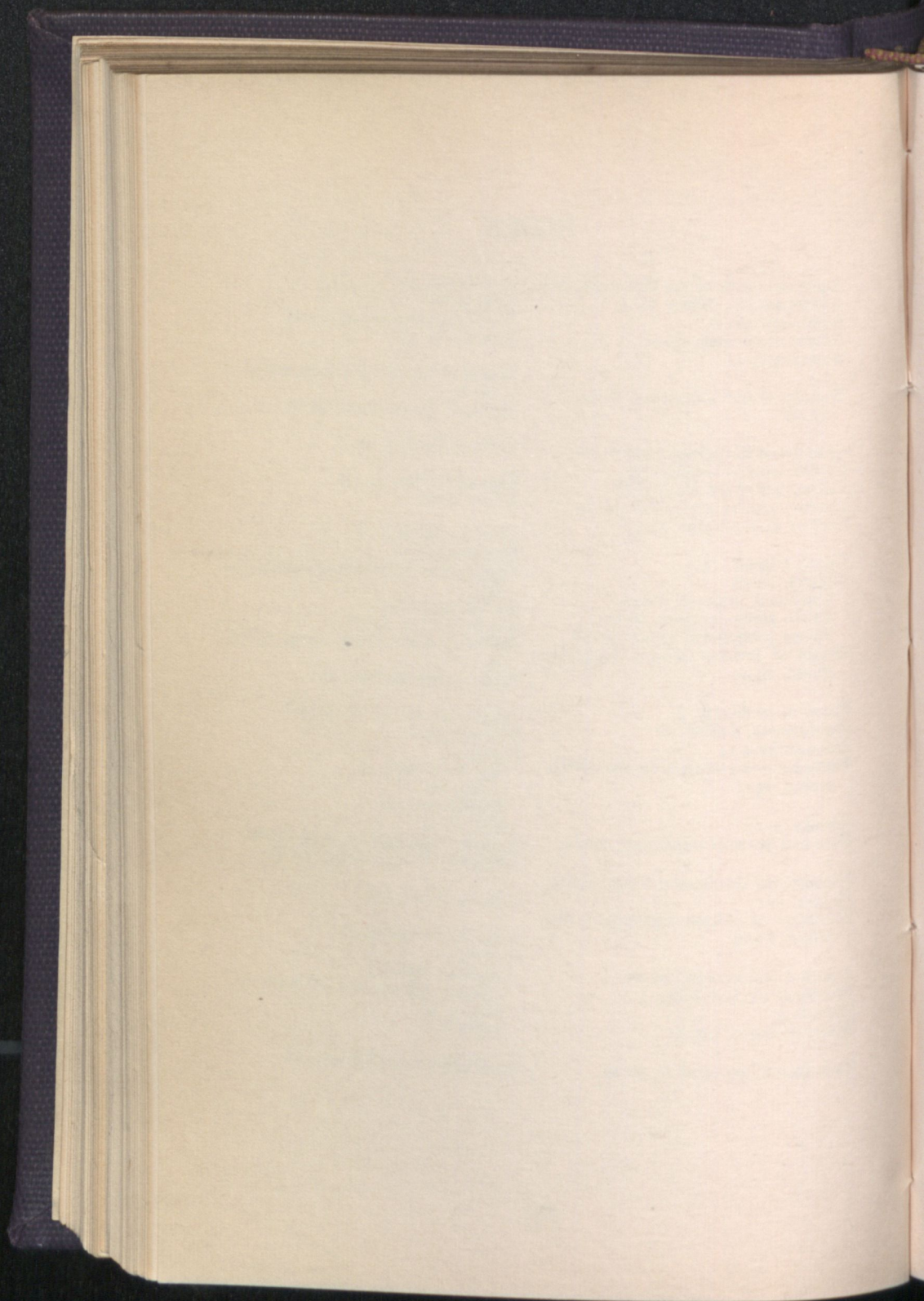




## INDEX

- Academic status of the University, 5-6
- Administration, officers of, 4
- Admission, 18-20
- Advanced standing, 19-20
- Attendance, 23
  
- Bachelor of Laws, degree of, 18-19, 27-28
  
- Calendar of the School, 1950-51, vi
- Classification of students, 25
- Committees of the Faculty, 15
- Course numbers, explanation of, 33
- Courses of instruction, 31-39
  
- Dean's Council, 15
- Degrees, 27-30
  - Conferred, 1949-50, 40-47
  - In the graduate course, 28-29
  - In the professional course, 26-28
- Doctor of Juridical Science, degree of, 19-20, 29-30
  
- Emeritus professors, 9
- Employment, student, 26
- Examinations, 24
- Exclusion and probation for poor scholarship, 25
  
- Faculty, 9-15
- Fees and financial regulations, 20-22
  
- Geographical distribution of students, 81
- Grades, 24
- Graduates of colleges registered in the School, 81-85
  
- Health Administration, 26-27
- History of the University, 5
- Honors, 29
- Hours of Instruction, 33
  
- Juris Doctor, degree of, 19, 28-29
  
- Law Review*, 15
- Library, 15
- Living accommodations, 25-26
- Loan funds, 23
  
- Master of Comparative Law, degree of, 19, 29
- Master of Laws, degree of, 19, 29
  
- Order of the Coif, 18
  
- Placement Office, 26, 27
- Prizes, 22-23
  
- Refund of tuition, 21
- Registration, 20
- Registrations in the School, number of, 85
- Regulations, 23-25
- Residence halls, 25-26
- Residence requirements, 23-24, 27-28, 29
- Right to drop students, 25
  
- Scholarship, 18, 19, 28, 29, 30
- Scholarships, 22
- Student:
  - Bar Association, 17
  - Fee, 20
  - Employment, 26
  - Life, 25-27
- Students registered, 1949-50, 48-80
- Summaries of registration, 81-85
  
- Trustees, Board of, 3
  
- Unclassified students, 20
- University:
  - Academic status, 5
  - Colleges, Schools, and Divisions, 5
  - History, 5
  - Location, 6
  
- Withdrawals and refunds, 21-22







THE  
GEORGE  
WASHINGTON  
UNIVERSITY

BULLETIN

THE SCHOOL OF MEDICINE

1950-51

VOL. XX

No. 1

THE SCHOOL OF MEDICINE

WASHINGTON, D. C.

PUBLISHED IN FEBRUARY  
1951

BY THE UNIVERSITY



THE SCHOOL OF MEDICINE

1950-51



THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

---

VOL. XLIX

No. 1

---

THE SCHOOL OF MEDICINE

---

WASHINGTON, D. C.

PUBLISHED IN FEBRUARY  
MCML

BY THE UNIVERSITY



THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

No. 1

Vol. XLIX

THE SCHOOL OF MEDICINE

WASHINGTON, D. C.

PUBLISHED IN FEBRUARY  
MCMX

BY THE UNIVERSITY



## CONTENTS

Calendar of the School of Medicine.....	vi
The Board of Trustees.....	1
Officers of Administration.....	2
Faculty and Staff of Instruction in Medicine.....	3
Assistants in Research and Instruction.....	24
Technical Assistants .....	26
Administrative Assistants .....	26
The School of Medicine.....	27
Courses of Instruction.....	42
Anatomy .....	43
Anesthesiology .....	44
Bacteriology, Hygiene, and Preventive Medicine.....	45
Biochemistry .....	47
Dermatology and Syphilology.....	48
Medicine .....	49
Military Science and Tactics.....	54
Neurology and Neurological Surgery.....	55
Obstetrics and Gynecology.....	57
Ophthalmology .....	60
Oto-rhino-laryngology .....	61
Pathology .....	62
Pediatrics .....	63
Pharmacology .....	65
Physical Medicine .....	66
Physiology .....	67
Psychiatry .....	69
Radiology .....	71
Surgery .....	72
Urology .....	75
Degrees Conferred, June 1, 1949.....	76
Students Registered, 1949-50.....	77
Summaries of Registration, 1949-50.....	83



# CALENDAR OF THE SCHOOL OF MEDICINE

1950-51

Date	Day	Occasion
1950:		
Sept. 12 .....	Tuesday .....	Reexaminations
Sept. 14 and 15....	Thursday and Friday...	Registration period for the academic year 1950-51
Sept. 18 .....	Monday .....	Academic year begins
Nov. 11 .....	Saturday .....	Armistice Day. Holiday
Nov. 23-25 .....	Thursday through Sat- urday .....	Thanksgiving recess
Dec. 22-Jan. 2....	Friday through Tuesday.	Christmas recess
1951:		
Jan. 19-27 .....	Friday through Saturday.	Fall term examination period
Jan. 29 .....	Monday .....	Classes resume for the winter term
Feb. 22 .....	Thursday .....	Winter Convocation. Holiday
March 23 and 24..	Friday and Saturday ...	Easter recess
April 30 .....	Monday .....	Last day for applications for degrees to be conferred in May
May 17-25 .....	Thursday through Friday.	Winter term examination pe- riod
May 27 .....	Sunday .....	Baccalaureate Sermon
May 30 .....	Wednesday .....	Commencement



## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President and Vice-President of the University ex officio and the following persons by election:

Robert Vedder Fleming, LL.D., *Chairman*  
Henry Parsons Erwin, A.B., *Secretary*  
Newell Windom Ellison, A.B., LL.B., *Assistant Secretary*

---

Avery DeLano Andrews, B.S., LL.B.  
Clarence Aiken Aspinwall  
Lyman James Briggs, Ph.D., Sc.D., D.Eng., LL.D.  
John St. Clair Brookes, Jr., A.M., LL.B.  
John Henry Cowles, LL.D.  
Homer Cummings, Ph.B., LL.B., LL.D., L.H.D.  
\*Watson Davis, B.S. in C.E., C.E.  
Mrs. Joshua Evans, Jr., A.B., Ed.D.  
\*Robert Elliott Freer, A.B., LL.M.  
Charles Carroll Glover, Jr., A.M., LL.B.  
Gilbert Grosvenor, A.M., LL.D., Litt.D.  
\*Brooks Hays, A.B., LL.B., LL.D.  
John Edgar Hoover, LL.M., LL.D.  
\*Frank Atherton Howard, B.S. in M.E., LL.B.  
Alfred Henry Lawson, LL.B.  
Benjamin Mosby McKelway  
\*Claude Worthington Owen, LL.M.  
Mrs. Henry Alvah Strong, LL.D.  
Walter Rupert Tuckerman, A.B., LL.B.  
Alexander Wetmore, Ph.D., Sc.D.  
\*Charles Stanley White, M.D., Sc.D.  
Lloyd Bennett Wilson

---

\* Nominated by the alumni.



## OFFICERS OF ADMINISTRATION

### THE UNIVERSITY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Ulysses S. Grant, 3d, B.S., *Graduate United States Engineers' School,*  
*Vice-President*  
Harold Griffith Sutton M.S., *Director of Admissions*  
Fred Everett Nessell, A.B., *Registrar; Secretary of the Faculties*  
John Russell Mason, B.S. in L.S., A.M., *Librarian; Curator of Art*  
Myrna Pauline Sedgwick, A.B., *Administrative Secretary*  
Henry William Herzog, B.S., *Comptroller*  
Donald David Blanchard, B.C.E., *Business Manager*  
Claud Max Farrington, A.M., *Director of Activities for Men*  
Virginia Randolph Kirkbride, A.M., *Director of Activities for Women*  
Alan Thomas Deibert, A.M., *Adviser to Students from Foreign Countries*  
Mitchell Dreese, Ph.D., *Dean of the Summer Sessions*  
Daniel LeRay Borden, A.M., M.D., *Director of Health Administration*  
Lester Allan Smith, A.M., *Director of Alumni Relations*  
John Rust Busick, A.B., *Director of Public Relations*  
Don Carlos Faith, A.M., *Director of Veterans Education*  
Benjamin Douglass Van Evera, Ph.D., *Coordinator of Scientific Activities*  
Burnice Herman Jarman, A.M., Ed.D., *Special Assistant to the President*

### THE SCHOOL OF MEDICINE AND THE UNIVERSITY HOSPITAL AND OUTPATIENT DEPARTMENT

Walter Andrew Bloedorn, A.M., M.D., Sc.D., *Dean of the School of*  
*Medicine; Medical Director of the University Hospital*  
Thomas Martin Peery, A.B., M.D., *Director of Postgraduate Instruc-*  
*tion; Director of Laboratories, the University Hospital*  
Victor Fred Ludewig, A.B., B.S., *Superintendent of the University Hos-*  
*pital*  
Clarence Richard Hartman, A.B., M.D., *Director of the Outpatient*  
*Department*



## FACULTY AND STAFF OF INSTRUCTION IN MEDICINE

### EMERITUS FACULTY

GEORGE BAIN JENKINS, M.D.  
*Professor Emeritus of Anatomy*

WILLIAM JOHNSTON MALLORY, A.M., M.D.  
*Professor Emeritus of Medicine*

JAMES FARNANDIS MITCHELL, A.B., M.D.  
*Professor Emeritus of Clinical Surgery*

GEORGE BYRON ROTH, A.B., M.D.  
*Professor Emeritus of Pharmacology*

### ACTIVE FACULTY AND STAFF OF INSTRUCTION

THEODORE JUDSON ABERNETHY, B.S., M.D.  
*Assistant Clinical Professor of Medicine. Associate in Medicine, University Hospital*

ERRETT CYRIL ALBRITTON, A.B., M.D.  
*Fry Professor of Physiology. Consultant in Physiology, University Hospital*

LOUIS KATZ ALPERT, B.S., M.D.  
*Adjunct Clinical Professor of Medicine. Associate in Medicine, University Hospital*

SEYMOUR ALPERT, A.B., M.D.  
*Instructor in Anesthesiology. Associate in Anesthesiology, University and Gallinger hospitals*

JAMES FRANCIS AMBURY, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

HARRY FORD ANDERSON, M.D.  
*Professor of Dermatology and Syphilology. Consultant and Chief of Service in Dermatology and Syphilology, University and Gallinger hospitals*

WILLIAM STATON ANDERSON, A.B., M.D.  
*Clinical Professor of Pediatrics. Associate in Pediatrics, University Hospital*

WARREN ANDREW, Ph.D., M.D.  
*Professor of Anatomy. Consultant in Anatomy, University Hospital*

CHARLES ARMSTRONG, B.S., M.D., Sc.D.  
*Professorial Lecturer in Preventive Medicine*

JAMES EARLE ASH, JR., M.D.  
*Professorial Lecturer in Pathology*

FRANK SOLOMON BACON, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*



- WILLIAM ELDRIDGE BAGEANT, M.D.  
*Clinical Instructor in Anesthesiology. Associate in Anesthesiology, University and Gallinger hospitals*
- WILLIAM OTIS BAILEY, JR., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- ARNOLD KENT BALLS, Ph.D.  
*Professorial Lecturer in Biochemistry*
- ROBERT HENRY BARTER, M.D.  
*Adjunct Clinical Professor of Obstetrics and Gynecology. Chief Medical Officer in Obstetrics and Gynecology, Gallinger Hospital*
- JEANNE CECILE BATEMAN, A.B., M.D.  
*Clinical Instructor in Medicine*
- HARRY CLARK BATES, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- EMIL HERBERT BAUERSFELD, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- RALPH GREGORY BEACHLEY, M.D. DR.P.H.  
*Adjunct Professor of Public Health Practice*
- EDWARD JAMES BEATTIE, JR., M.D.  
*Associate in Surgery. Associate in Surgery, University and Gallinger hospitals*
- VIRGINIA PATTERSON BEELAR, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- JOSEPH BEINSTEIN, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- CARL BERG, M.D.  
*Assistant Clinical Professor of Orthopedic Surgery. Associate in Orthopedic Surgery, University and Gallinger hospitals*
- SIDNEY BERMAN, B.S., M.D.  
*Assistant Clinical Professor of Psychiatry. Associate in Psychiatry, University and Gallinger hospitals*
- SOLOMON RODNEY BERSACK, M.D.  
*Associate in Radiology. Associate in Radiology, University Hospital*
- ROLAND ESSIG BIEREN, M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- CATHARINE BIRCH, A.B., M.D.  
*Clinical Instructor in Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital*
- BRIAN BLADES, A.B., M.D.  
*Professor of Surgery. Chief of Service in Surgery, University Hospital*



- WALTER ANDREW BLOEDORN, A.M., M.D., Sc.D.  
*Professor of Medicine; Dean of the School of Medicine. Medical Director, University Hospital; Consultant in Medicine, Gallinger Hospital*
- LESTER SYLVAN BLUMENTHAL, A.B., M.D., M.S. IN MED.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- STERLING BOCKOVEN, M.D.  
*Associate in Ophthalmology. Associate in Ophthalmology, University Hospital*
- DANIEL LERAY BORDEN, A.M., M.D.  
*Clinical Professor of Surgery; Director of Health Administration. Associate in Surgery, University Hospital*
- JAMES IRVING BOYD, M.D.  
*Lecturer in Medicine*
- THOMAS BRADLEY, A.B., M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University and Gallinger hospitals*
- SARA ELIZABETH BRANHAM, Ph.D., M.D., Sc.D.  
*Professorial Lecturer in Preventive Medicine*
- ANDREW JOSEPH BRENNAN, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- ROBERT LEE BRICKHOUSE, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- CRENSHAW DOUGLAS BRIGGS, B.S., M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*
- ALBERT SEYMOUR BRIGHT, M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- ALFRED BRIGULIO, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- WARREN DANIEL BRILL, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- BROOKS GIDEON BROWN, B.S., M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University and Gallinger hospitals*
- HALLA BROWN, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- RADFORD BROWN, M.D.  
*Clinical Professor of Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Consultant in Obstetrics, Gallinger Hospital*



- THOMAS McPHERSON BROWN, A.B., M.D.  
*Professor of Medicine. Chief of Service in Medicine, University Hospital; Consultant in Medicine, Gallinger Hospital*
- LLOYD BYRON BURK, JR., M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University and Gallinger hospitals*
- FREDERIC GERARD BURKE, B.S., M.D.  
*Associate in Pediatrics. Associate in Pediatrics, University Hospital*
- JAMES THEODORE BURNS, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- EDWARD ALEXANDER CAFRITZ, M.D.  
*Associate in Surgery. Associate in Surgery, University Hospital*
- PAUL CALABRISI, A.M.  
*Associate Professor of Anatomy*
- RICHARD BERNARD CASTELL, A.B., M.D.  
*Associate in Medicine. Associate in Medicine, University Hospital*
- WILLIAM PAXSON CHALFANT, JR., M.D.  
*Clinical Instructor in Ophthalmology. Associate in Ophthalmology, University Hospital*
- FREDERIC DUNBAR CHAPMAN, A.B., M.D., C.M.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- WILLIAM WILEY CHASE, A.B., M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*
- PAUL CHODOFF, A.B., M.D.  
*Associate in Neurology. Associate in Neurology, University and Gallinger hospitals*
- ROGER MORRISON CHOISSER, B.S., M.D.  
*Professor of Pathology. Consultant in Pathology, University Hospital; Chief of Service in Pathology, Gallinger Hospital*
- HUGH GAMBEL CLARK, A.B., M.D.  
*Clinical Instructor in Pediatrics. Associate in Pediatrics, University Hospital*
- CHARLES SEYMOUR COAKLEY, M.D.  
*Assistant Professor of Anesthesiology. Associate in Anesthesiology, University and Gallinger hospitals*
- ROBERT NORWOOD COALE, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- LAURENCE LEE COCKERILLE, M.D.  
*Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- FREDERICK WARREN COE, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*



- MAYNARD IRVING COHEN, A.B., M.D.  
*Clinical Instructor in Pediatrics. Associate in Pediatrics, University Hospital*
- HAZEN EUGENE COLE, B.S., M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*
- PETER DIACOUMIS COMANDURAS, M.D., M.S.  
*Associate Clinical Professor of Medicine. Associate in Medicine, University Hospital*
- JOSEPH FRANCIS CONLON, D.D.S.  
*Clinical Instructor in Dental Surgery. Associate in Surgery, University Hospital*
- JOSEPH AUGUSTINE CONNOR, JR., M.D.  
MAJOR, MEDICAL CORPS, UNITED STATES ARMY  
*Professor of Military Science and Tactics*
- ROBERT CARTER COOK  
*Professorial Lecturer on Medical Genetics*
- IVOR CORNMAN, Ph.D.  
*Assistant Research Professor of Anatomy*
- FRANK DUNCAN COSTENBADER, B.S., M.D.  
*Assistant Clinical Professor of Ophthalmology. Associate in Ophthalmology, University Hospital*
- RONALD ATMORE COX, A.B., M.D.  
*Assistant Clinical Professor of Ophthalmology. Associate in Ophthalmology, University Hospital*
- GEORGE WILLIAM CRESWELL, A.B., M.D.  
*Assistant Clinical Professor of Dermatology and Syphilology. Associate in Dermatology and Syphilology, University Hospital*
- JEREMIAH KEITH CROMER, M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Chief of Service in Gynecology, Gallinger Hospital*
- LEON RICHARD CULBERTSON, B.S., M.D.  
*Clinical Instructor in Urology. Associate in Urology, University Hospital*
- WILLIAM GREEN CUSHARD, M.D.  
*Clinical Instructor in Psychiatry. Associate in Psychiatry, University and Gallinger hospitals*
- HUGH HACKLAND DARBY, Ph.D.  
*Research Professor of Biophysics*
- HENRY LAURAN DARNER, A.B., M.D.  
*Clinical Professor of Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- CARL CALVIN DAUER, A.B., M.D., M.P.H.  
*Assistant Clinical Professor of Medicine. Associate in Medicine, University Hospital*



- WALTER FREEMAN, Ph.D., M.D.  
*Professor of Neurology. Consultant and Chief of Service in Neurology, University Hospital; Chief of Service in Neurology, Gallinger Hospital*
- MARVIN FUCHS, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- JAMES QUINCY GANT, Jr., M.S., M.D.  
*Associate in Dermatology and Syphilology. Associate in Dermatology and Syphilology, University and Gallinger hospitals*
- LEON GERBER, M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University and Gallinger hospitals*
- WALTER HENRY GERWIG, Jr., A.B., M.D.  
*Associate in Surgery. Associate in Surgery, University and Gallinger hospitals*
- WILLIAM TRAVIS GIBB, A.B., M.D.  
*Assistant Clinical Professor of Medicine. Associate in Medicine, University Hospital*
- SAM THOMPSON GIBSON, B.S., M.D.  
*Associate in Medicine. Associate in Medicine, University Hospital*
- EUGENE SOLOMON GLADSDEN, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- HERBERT DUDLEY GLICK, B.M., M.D.  
*Clinical Instructor in Pediatrics. Associate in Pediatrics, University Hospital*
- REUBEN GOODMAN, M.D.  
*Clinical Instructor in Dermatology and Syphilology. Associate in Dermatology and Syphilology, University and Gallinger hospitals*
- ERNEST ALVA GOULD, M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University and Gallinger hospitals*
- WALLACE HARRY GRAHAM, B.S., M.D.  
*Professorial Lecturer in Surgery. Associate in Surgery, University Hospital*
- ANGUS MACIVOR GRIFFIN, Ph.D.  
*Professor of Bacteriology*
- ROBERT HENRY GROH, B.S., M.D.  
*Assistant Clinical Professor of Neurology. Associate in Neurology, University Hospital*
- MABEL HARLAKENDEN GROSVENOR, A.B., M.D.  
*Assistant Clinical Professor of Pediatrics. Associate in Pediatrics, University Hospital*
- CUSTIS LEE HALL, M.D.  
*Clinical Professor of Surgery. Associate in Surgery, University Hospital*
- ROSCOE WILLIS HALL, Ph.B., M.D.  
*Clinical Professor of Psychiatry. Associate in Psychiatry, University Hospital*



- CHARLES ROBERT LEE HALLEY, A.B., M.D.  
*Clinical Professor of Medicine. Associate in Medicine, University Hospital*
- WILLIAM HENRY HANNA, A.B., M.D.  
*Clinical Instructor in Ophthalmology. Associate in Ophthalmology, University Hospital*
- BERNARD LAURISTON HARDIN, JR., A.B., M.D.  
*Associate in Medicine. Associate in Medicine, University Hospital*
- JEROME BLAINE HARRELL, M.D.  
*Assistant Clinical Professor of Surgery. Associate in Surgery, University Hospital; Head of Department of Surgery, Gallinger Hospital*
- CLARENCE RICHARD HARTMAN, A.B., M.D.  
*Assistant Clinical Professor of Medicine. Director of University Outpatient Department*
- THOMAS LEES HARTMAN, A.M., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- WEBB EDWARD HAYMAKER, M.S., M.D.  
*Professorial Lecturer in Anatomy*
- JOHN RODERICK HELLER, JR., B.S., M.D.  
*Professorial Lecturer on Venereal Disease Control*
- ELSON BOWMAN HELWIG, B.S., M.D.  
*Professorial Lecturer in Pathology*
- ROY HERTZ, Ph.D., M.D.  
*Assistant Clinical Professor of Medicine. Associate in Medicine, University Hospital*
- JAMES THOMAS HICKS, M. S.  
*Associate in Physiology*
- GEORGE ALFRED HIGGINS, B.S., M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*
- ROBERT PELLEY HILL, B.S., M.D.  
*Assistant Professor of Pathology. Assistant Director of Laboratories, University Hospital*
- CLAYTON HOWARD HIXSON, M.D.  
*Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- T. WILEY HODGES, A.B., M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University and Gallinger hospitals*
- PEARL HOLLY, M.S., M.D.  
*Associate in Medicine. Associate in Medicine, University and Gallinger hospitals*
- BERNARD LEONARD HORECKER, Ph.D.  
*Professorial Lecturer on Enzymes*



- ALEC HORWITZ, M.S., M.D.  
*Associate Clinical Professor of Surgery. Associate in Surgery, University Hospital*
- WILLIAM ALLEN HOWARD, A.B., M.D.  
*Associate in Pediatrics. Associate in Pediatrics, University Hospital*
- MARY JANE HOWELL, A.B., M.D.  
*Clinical Instructor in Pediatrics*
- VINCENT MICHAEL IOVINE, B.S., M.D.  
*Assistant Clinical Professor of Surgery. Associate in Surgery, University and Gallinger hospitals*
- GEORGE WASHINGTON IRVING, JR., Ph.D.  
*Professorial Lecturer on Proteins*
- CAROLINE JACKSON, A.M., M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- RICHARD LEE JACKSON, M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*
- DOROTHY STEINLE JAEGER-LEE, M.D.  
*Assistant Clinical Professor of Pediatrics. Associate in Pediatrics, University Hospital*
- RUSSEL JON JANSEN, M.D.  
*Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- WILLIAM DABNEY JARMAN, B.S., M.D.  
*Clinical Instructor in Urology. Associate in Urology, University and Gallinger hospitals*
- WILLIAM HERNDON JENKINS, M.D.  
*Clinical Professor of Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital*
- BENJAMIN CALLOWAY JONES, JR., M.D.  
*Associate in Medicine. Associate in Medicine, University Hospital*
- CHARLES WILSON JONES, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- SOL KATZ, B.S., M.D.  
*Adjunct Clinical Professor of Medicine*
- SOLOMON KATZENELBOGEN, M.D.  
*Clinical Professor of Psychiatry. Associate in Psychiatry, University and Gallinger hospitals*
- MORTON SELWYN KAUFMAN, A.B., M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*



JOHN WILLIAM KEMBLE, A.B., M.D.

*Clinical Instructor in Neurology*

ISABELLE KENDIG, Ph.D.

*Associate in Psychiatry. Associate in Psychiatry, University Hospital*

MARVIN HAYNE KENDRICK, A.B., M.D.

*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*

IRVIN KERLAN, B.S., M.D., C.P.H.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

ISRAEL KESSLER, M.S. M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

HAYDEN KIRBY-SMITH, B.S., M.D.

*Assistant Clinical Professor of Dermatology and Syphilology. Associate in Dermatology and Syphilology, University and Gallinger hospitals*

STANLEY WILLIAM KIRSTEIN, M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*

ALBERT DAVID KISTIN, A.M., M.D.

*Associate in Medicine*

MORRIS KLEINERMAN, Ch.D., M.B.

*Assistant Clinical Professor of Psychiatry. Associate in Psychiatry, University Hospital*

CALVIN TREXLER KLOPP, A.B., M.D.

*Assistant Clinical Professor of Surgery. Associate in Surgery, University and Gallinger hospitals*

ALVIN KNUDSON, B.S., M.D.

*Associate in Physical Medicine. Associate in Physical Medicine, University Hospital*

JACOB KOTZ, M.D.

*Clinical Professor of Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*

HAROLD WALTER KROGH, D.D.S.

*Associate in Dental Surgery. Associate in Surgery, University Hospital*

WILLIAM THURSTON LADY, M.D.

*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Chief of Service in Obstetrics, Gallinger Hospital*

CARL LEONARD LARSON, B.S., M.D.

*Assistant Clinical Professor of Medicine*

JOHN WILMER LATIMER, Jr., M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

HENRY PRATHER LAUGHLIN, B.S., M.D.

*Assistant Clinical Professor of Psychiatry. Associate in Psychiatry, University and Gallinger hospitals*



- CARL JOHN LAUTER, M.S.  
*Professorial Lecturer on Municipal Sanitation*
- CHARLES EDWARD LAW, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- ALFRED HENRY LAWTON, M.D., Ph.D.  
*Assistant Clinical Professor of Medicine*
- JOHN GORDON LEE, A.B., M.D., C.M., MED. SC.D.  
*Adjunct Clinical Professor of Surgery. Associate in Surgery, University Hospital*
- CHESTER ELWOOD LEESE, Ph.D.  
*Professor of Physiology*
- OSCAR LEGAULT, A.B., M.D.  
*Clinical Instructor in Neurology. Associate in Neurology, University and Gallinger hospitals*
- HAROLD BERNARD LEHRMAN, A.B., M.D.  
*Clinical Instructor in Neurology. Associate in Neurology, University and Gallinger hospitals*
- THOMAS MILES LEONARD, Ph.B., M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Chief of Service in Obstetrics, Gallinger Hospital*
- MARK HUMMER LEPPER, M.D.  
*Associate in Medicine. Associate in Medicine, University and Gallinger hospitals*
- GORDON SPARKS LETTERMAN, A.B., B.S., M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*
- EDWARD LEWIS, M.D.  
*Clinical Professor of Pediatrics. Associate in Pediatrics, University Hospital*
- JAMES WALLING LONG, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- REGINALD SPENCER LOURIE, M.D.  
*Associate in Pediatrics. Associate in Pediatrics, University Hospital*
- VICTOR FREDERICK LUDEWIG, A.B., B.S.  
*Superintendent of the University Hospital*
- JOHN HUGH LYONS, M.S., M.D.  
*Clinical Professor of Surgery. Associate in Surgery, University Hospital*
- ROSS CLAYTON MacCARDLE, Ph.D.  
*Professorial Lecturer in Anatomy*
- GORDON RHODES MacDONALD, M.D.  
*Clinical Instructor in Urology. Associate in Urology, University and Gallinger hospitals*



- FRANK GOODNOW MACMURRAY, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- PAUL BUDD MAGNUSON, M.D.  
*Adjunct Clinical Professor of Surgery. Associate in Surgery, University Hospital*
- GEORGE MAKSIM, M.D., M.S. IN PED.  
*Assistant Clinical Professor of Pediatrics. Associate in Pediatrics, University and Gallinger hospitals*
- BENJAMIN MANCHESTER, M.D.  
*Assistant Clinical Professor of Medicine. Associate in Medicine, University and Gallinger hospitals*
- JOHN BAYNE MARBURY, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- WILLIAM BERRY MARBURY, M.D.  
*Clinical Professor of Surgery. Associate in Surgery, University Hospital*
- SHIRLEY SUE MARTIN, M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Associate in Obstetrics, Gallinger Hospital*
- WILLIAM GRAY McCARTEN, M.S.  
*Associate in Bacteriology*
- JAMES EDWARD McCORMACK, A.B., M.D.  
*Associate in Medicine. Associate in Medicine, University Hospital*
- WILLIAM STANLEY McCUNE, A.B., M.D.  
*Assistant Clinical Professor of Surgery. Associate in Surgery, University and Gallinger hospitals*
- JAMES JERRY McFARLAND, JR., B.S., M.D.  
*Clinical Instructor in Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital*
- JASPER WAYNE McFARLAND, B.S., M.D.  
*Clinical Instructor in Physical Medicine. Associate in Physical Medicine, University and Gallinger hospitals*
- LEWIS WATKINS McILHANY, M.S., M.D.  
*Clinical Instructor in Public Health Practice*
- PRESTON ALEXANDER McLENDON, B.S., M.D.  
*Professor of Pediatrics. Chief of Service in Pediatrics, University Hospital; Chief, George Washington Pediatric Division, Gallinger Hospital*
- HENRY JOHN RUSSELL McNITT, B.S. IN MED., M.D.  
*Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- WILLIAM CAREY MELOY, M.D., M.S. IN MED.  
*Associate in Surgery. Associate in Surgery, University and Gallinger hospitals*
- MAURICE MENSCH, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*



- WILLIAM MERCHANT, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- BENJAMIN FRANK MILLER, B.S., CHEM. ENG., M.D.  
*Clinical Professor of Medicine. Associate in Medicine, University Hospital*
- RALPH BRETNEY MILLER, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- MARY BARBARA MILLS, PH.D.  
*Assistant Professor of Biochemistry*
- JOHN MINOR, A.B., M.D.  
*Associate in Medicine. Associate in Medicine, University Hospital*
- REGINALD HENRY MITCHELL, M.D.  
*Clinical Instructor in Pediatrics. Associate in Pediatrics, University Hospital*
- DANIEL BRUCE MOFFETT, A.B., M.D.  
*Professor of Oto-rhino-laryngology. Chief of Service in Oto-rhino-laryngology, University Hospital; Consultant, Gallinger Hospital*
- WILLIAM ROSS MORRIS, M.D.  
*Associate in Surgery. Associate in Surgery, University Hospital*
- ARTHUR JAMES MOUROT, B.S., M.D.  
*Clinical Instructor in Surgery. Associate in Surgery, University Hospital*
- LLOYD HARVEY MOUSEL, M.S., M.D.  
*Professor of Anesthesiology. Associate in Anesthesiology, University and Gallinger hospitals*
- JAMES PETER MURPHY, B.S., M.D.  
*Associate in Neurological Surgery. Associate in Neurological Surgery, University and Gallinger hospitals*
- FRANCIS JAMES MURRAY, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- WALTER KENDALL MYERS, B.S., M.D.  
*Assistant Clinical Professor of Medicine. Associate in Medicine, University Hospital*
- WALTER LEWIS NALLS, B.S., M.D.  
*Associate in Medicine. Associate in Medicine, University Hospital*
- CARMON ROBERT NAPLES, B.S., M.D.  
*Clinical Instructor in Ophthalmology. Associate in Ophthalmology, University Hospital*
- CHARLES HENRY NASH, JR., M.D.  
*Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- ERWIN ELLIS NELSON, M.D., PH.D.  
*Adjunct Clinical Professor of Pharmacology*



- JULIUS SALEM NEVIASER, A.B., M.D.  
*Assistant Clinical Professor of Orthopedic Surgery. Associate in Orthopedic Surgery, University and Gallinger hospitals*
- JOSEPH NEY, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- MARGARET MARY NICHOLSON, A.B., M.D.  
*Clinical Professor of Pediatrics. Associate in Pediatrics, University Hospital; Senior Attending Physician in Pediatrics, Gallinger Hospital*
- AARON NIMETZ, A.B., M.D.  
*Assistant Clinical Professor of Pediatrics. Associate in Pediatrics, University Hospital*
- GEORGE NORDLINGER, A.B., M.D.  
*Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Chief of Service in Obstetrics, Gallinger Hospital*
- JOEL NORTON NOVICK, M.S., M.D.  
*Clinical Instructor in Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital*
- ROGER O'DONNELL, JR., A.B., M.D.  
*Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- SIDNEY OLANSKY, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- CHARLES WILLIAM ORDMAN, A.B., M.D.  
*Associate in Medicine. Associate in Medicine, University and Gallinger hospitals*
- GILBERT OTTENBERG, A.M., M.D.  
*Associate in Urology. Associate in Urology, University and Gallinger hospitals*
- WINFRED OVERHOLSER, A.B., M.D., Sc.D.  
*Professor of Psychiatry. Consultant and Chief of Service in Psychiatry, University Hospital; Chief of Service in Psychiatry, Gallinger Hospital*
- HELEN PALLISTER, Ph.D.  
*Clinical Psychiatrist, Department of Psychiatry*
- EDWIN PEARSON PARKER III, B.S., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- HOWARD POPE PARKER, A.B., M.D.  
*Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- KATHERINE ELIZABETH PARKER, A.M., M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- JOHN PARKS, M.S., M.D.  
*Professor of Obstetrics and Gynecology. Chief of Service in Obstetrics and Gynecology, University Hospital; Head of the Department of Obstetrics and Gynecology, Gallinger Hospital*



- LELAND WILBUR PARR, PH.D.  
*Professor of Bacteriology. Consultant in Bacteriology, University Hospital*
- ALVIN EDWARD PARRISH, M.D.  
*Professorial Lecturer in Physiology*
- JOHN HOWELL PEACOCK, B.S., M.D.  
*Clinical Instructor in Pediatrics. Associate in Pediatrics, University and Gallinger hospitals*
- JED WILLIAMS PEARSON, JR., A.B., M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Chief of Service in Obstetrics, Gallinger Hospital*
- THOMAS MARTIN PEERY, A.B., M.D.  
*Associate Professor of Pathology. Director of Postgraduate Instruction; Director of Laboratories, University Hospital*
- THOMAS JOSEPH PEKIN, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- LEONARD THEODORE PETERSON, A.B., B.S., M.D.  
*Assistant Clinical Professor of Orthopedic Surgery. Associate in Orthopedic Surgery, University Hospital; Chief of Service in Orthopedics, Gallinger Hospital*
- JOSEPH MICHAEL PISANI, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- LOIS IRENE PLATT, A.B., M.D.  
*Clinical Instructor in Surgery (Cancer Cytology). Associate in Surgery, University Hospital*
- ANDREW GABRIEL PRANDONI, B.S., M.D.  
*Associate in Medicine. Associate in Medicine, University and Gallinger hospitals*
- NEEL JACK PRICE, B.S., M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Associate in Gynecology, Gallinger Hospital*
- MAURICE PROTAS, A.B., M.D.  
*Associate in Medicine. Associate in Medicine, University Hospital*
- LAWRENCE ELIAS PUTNAM, A.B., M.D.  
*Associate in Medicine. Associate in Medicine, University Hospital*
- PAUL STIRLING PUTZKI, M.D.  
*Clinical Professor of Surgery. Associate in Surgery, University Hospital*
- BORIS RABKIN, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- ELIZABETH MAPLES DEN RAMSEY, A.B., M.D.  
*Professorial Lecturer in Pathology*
- HERBERT PERCY RAMSEY, A.B., M.D.  
*Clinical Professor of Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Consultant in Gynecology, Gallinger Hospital*



HENRY RAPPAPORT, M.D.

*Professorial Lecturer in Pathology*

ADRIAN RECINOS, JR., B.S., M.D.

*Clinical Instructor in Pediatrics*

JOHN ALTON REED, A.B., M.D.

*Assistant Clinical Professor of Medicine. Associate in Medicine, University Hospital*

FREDERICK A. REUTER, M.D.

*Professor of Urology. Chief of Service in Urology, University Hospital; Consultant, Gallinger Hospital*

JACK JACOB RHEINGOLD, A.B., M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*

MARION BALLARD RICHMOND, B.S., M.D.

*Clinical Instructor in Neurology. Associate in Neurology, University and Gallinger hospitals*

DUANE CASE RICHTMEYER, A.B., M.D.

*Clinical Instructor in Surgery. Associate in Surgery, University and Gallinger hospitals*

BARTON WINTERS RICHWINE, M.D.

*Associate in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Chief of Service in Obstetrics, Gallinger Hospital*

ARCH LOCKHART RIDDICK, B.S., M.D.

*Clinical Professor of Surgery. Associate in Surgery, University Hospital*

HUGO VICTOR RIZZOLI, A.B., M.D.

*Clinical Instructor in Neurological Surgery. Associate in Neurological Surgery, University Hospital*

MARY LOUISE ROBBINS, PH.D.

*Assistant Professor of Bacteriology*

JOSEPH HYRAM ROE, PH.D.

*Professor of Biochemistry. Consultant in Biochemistry, University Hospital*

FLOYD STERLING ROGERS, M.D.

*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Chief of Service in Gynecology, Gallinger Hospital*

AUSTIN BERTRAM ROHRBAUGH, JR., M.D.

*Clinical Instructor in Orthopedic Surgery. Associate in Orthopedic Surgery, University and Gallinger hospitals*

RUFUS MARTIN ROLL, A.B., M.D.

*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*

MONROE JAMES ROMANSKY, A.B., M.D.

*Associate Professor of Medicine. Associate in Medicine, University and Gallinger hospitals; Assistant Director of Laboratories, University Hospital*



- WALTER JOSEPH ROMEJKO, M.D.  
*Clinical Instructor in Ophthalmology. Associate in Ophthalmology, University Hospital*
- MORTON HAROLD ROSE, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- MORRIS HIRSH ROSENBERG, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- LOUIS ROSS, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- SYDNEY ROSS, M.D.  
*Clinical Instructor in Pediatrics. Associate in Pediatrics, University Hospital*
- MARSHALL DE GRAFFENRIED RUFFIN, B.S., M.D.  
*Assistant Clinical Professor of Psychiatry. Associate in Psychiatry, University and Gallinger hospitals*
- ALEXANDER LESUEUR RUSSELL, M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- JOSEPH FRANCIS SADUSK, JR., A.B., M.D.  
*Adjunct Clinical Professor of Medicine. Associate in Medicine, University Hospital*
- WILLIAM WARREN SAGER, M.S., M.D.  
*Associate Clinical Professor of Surgery. Associate in Surgery, University Hospital*
- THOMAS STONE SAPPINGTON, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- MARY KATHERINE LAURENCE SARTWELL, A.B., M.D.  
*Clinical Instructor in Pediatrics. Associate in Pediatrics, University Hospital*
- LEROY LEE SAWYER, A.B., M.D.  
*Assistant Clinical Professor of Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital*
- ROYD RAY SAYERS, A.M., M.D.  
*Professorial Lecturer on Industrial Hygiene*
- HERBERT HERMANN SCHOENFELD, M.D.  
*Associate Clinical Professor of Surgery. Associate in Surgery, University Hospital*
- RAYMOND SCHWARTZ, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- WILLIAM HENRY SEBRELL, JR., M.D.  
*Professorial Lecturer on Nutrition*
- SAM FOSTER SEELEY, B.S., M.B., M.D.  
*Adjunct Clinical Professor of Surgery*



HYMAN DAVID SHAPIRO, M.D.

*Associate Clinical Professor of Neurology. Associate in Neurology, University and Gallinger hospitals*

GEORGE SHARPE, A.B., M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

SAMUEL HAZEN SHEA, M.D.

*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Associate in Gynecology, Gallinger Hospital*

ERNEST ALFRED WATSON SHEPPARD, M.D., C.M.

*Professor of Ophthalmology. Chief of Service in Ophthalmology, University Hospital; Consultant in Ophthalmology, Gallinger Hospital*

SAMUEL ALEXANDER SILK, PHAR.G., M.D.

*Associate in Psychiatry. Associate in Psychiatry, University Hospital*

HANS FRANK SMETANA, M.D.

*Professorial Lecturer in Pathology*

BENJAMIN WILLIAMS SMITH, M.S.

*Instructor in Biochemistry*

KENNETH McLANE SMITH, A.B., M.D.

*Associate in Medicine. Associate in Medicine, University Hospital*

PAUL KENNETH SMITH, PH.D.

*Professor of Pharmacology. Consultant in Therapeutics, University and Gallinger hospitals*

LUTHER HENRY SNYDER, A.B., M.D.

*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*

WILLIAM STANBRO, M.D.

*Associate Professor of Radiology. Chief Roentgenologist, University Hospital; Consultant in Radiology, Gallinger Hospital*

HYMAN ERWIN STEINMAN, M.D.

*Professorial Lecturer in Physiology*

CHARLES FREDERICK STIEGLER, A.B., M.D.

*Clinical Instructor in Pediatrics. Associate in Pediatrics, University Hospital*

JOSEPH WILLIAM STILL, M.D., M.P.H.

*Instructor in Physiology*

MYER HAROLD STOLAR, B.S., M.D.

*Associate in Medicine. Associate in Medicine, University and Gallinger hospitals*

MICOLLIUS NOEL STOW, M.D., D.M.S.

*Clinical Instructor in Ophthalmology. Associate in Ophthalmology, University Hospital*

DONALD HARRISON STUBBS, A.M., M.D.

*Clinical Professor of Anesthesiology. Associate in Anesthesiology, University and Gallinger hospitals*



- SAMUEL JACOB NATHAN SUGAR, PHAR.G., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- LEWIS KAIGLER SWEET, A.B., M.D.  
*Adjunct Clinical Professor of Pediatrics. Chief Medical Officer in Pediatrics, Gallinger Hospital*
- SAMUEL ROSS TAGGART, M.D.  
*Assistant Clinical Professor of Medicine*
- IRENE GORSKI TAMAGNA, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- NORMAN TAUB, B.S., M.D.  
*Associate in Psychiatry. Associate in Psychiatry, University Hospital*
- ROBERT GEORGE TAYLOR, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University Hospital*
- WILLIAM DANDRIDGE TERRELL, JR., M.D.  
*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*
- LAWRENCE JAY THOMAS, B.S., M.D.  
*Associate in Medicine. Associate in Medicine, University and Gallinger hospitals*
- CHARLES WATERS THOMPSON, M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*
- RICHARD KNIGHT THOMPSON, D.D.S.  
*Associate in Dental Surgery. Associate in Surgery, University Hospital*
- THOMAS CARLTON THOMPSON, B.S., M.D.  
*Clinical Professor of Urology. Associate in Urology, University Hospital*
- NORMAN HAWKINS TOPPING, A.B., M.D.  
*Professorial Lecturer on Rickettsial Diseases*
- CARLETON RAYMOND TREADWELL, PH.D.  
*Associate Professor of Biochemistry*
- JOHN WATKINS TRENIS, A.B., M.D.  
*Associate in Medicine. Associate in Medicine, University Hospital*
- ALDO PETER TRUANT, PH.D.  
*Assistant Professor of Pharmacology*
- HARRIET ELIZABETH TWOMBLY, A.B., M.D.  
*Associate in Psychiatry. Associate in Psychiatry, University Hospital*
- HOMER KING VANN, A.B., M.D.  
*Clinical Instructor in Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital*
- DOROTHY EMILY VOSS, Ed.B., R.P.T.T.  
*Associate in Physical Medicine*



MERTON THEODORE WAITE, M.D.

*Instructor in Anatomy*

KEENE MANNING WALLACE, M.D.

*Associate in Radiology. Associate in Radiology, University Hospital*

DONALD WALTERS, M.D.

*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital; Associate in Obstetrics, Gallinger Hospital*

JOHN AUGUSTINE WASHINGTON, A.B., B.S., M.D.

*Assistant Clinical Professor of Pediatrics. Associate in Pediatrics, University Hospital*

JAMES WINSTON WATTS, B.S., M.D.

*Professor of Neurological Surgery. Chief of Neurosurgery, University and Gallinger hospitals*

WILLIAM JACK WEAVER, JR., A.B., M.D.

*Clinical Instructor in Medicine, Associate in Medicine, University Hospital*

GEORGE DAVIS WEICKHARDT, M.D.

*Clinical Instructor in Neurology. Associate in Neurology, University and Gallinger hospitals*

JACOB JOSEPH WEINSTEIN, B.S., PHAR.G., M.D.

*Associate in Surgery. Associate in Surgery, University and Gallinger hospitals*

CARL HUNT WELLS, B.S., M.D.

*Associate Professor of Pathology. Associate in Pathology, University and Gallinger hospitals*

RICHARD LEE WHELTON, M.D.

*Clinical Instructor in Medicine. Associate in Medicine, Gallinger Hospital*

RUTH HECHLER WICHELHAUSEN, M.D.

*Associate in Medicine*

ALLEN WIDOME, M.D.

*Clinical Instructor in Anesthesiology. Associate in Anesthesiology, University and Gallinger hospitals*

RICHARD WALLACE WILKINSON, M.S., M.D.

*Associate in Ophthalmology. Associate in Ophthalmology, University Hospital*

WENDELL MELVIN WILLETT, M.D.

*Associate in Dermatology and Syphilology. Associate in Dermatology and Syphilology, University and Gallinger hospitals*

JONATHAN MARSHALL WILLIAMS, M.D.

*Clinical Instructor in Neurological Surgery. Associate in Neurology and Neurological Surgery, University and Gallinger hospitals*

THOMAS FRASIER WILLIAMS, M.D.

*Clinical Instructor in Oto-rhino-laryngology. Associate in Oto-rhino-laryngology, University Hospital*

THOMAS ASHTON WILSON, M.D.

*Clinical Instructor in Obstetrics and Gynecology. Associate in Obstetrics and Gynecology, University Hospital*



- IRVING WOLFE WINIK, M.D.  
*Assistant Clinical Professor of Medicine. Associate in Medicine, University and Gallinger hospitals*
- CHARLES SAMUEL WISE, B.S., M.D.  
*Associate Professor of Physical Medicine. Director of Physical Medicine, University Hospital; Consultant in Physical Medicine, Gallinger Hospital*
- HERBERT DeGRANGE WOLFF, JR., M.D.  
*Clinical Instructor in Urology. Associate in Urology, University Hospital*
- HENRY HARCUS WORK, A.B., M.D.  
*Associate in Pediatrics*
- WILLARD HULL WRIGHT, D.V.M., Ph.D.  
*Professorial Lecturer on Medical Zoology*
- CLARK HARVEY YEAGER, M.D., Dr.P.H.  
*Professorial Lecturer on Tropical Medicine*
- LEON YOCHELSON, A.B., M.D.  
*Assistant Clinical Professor of Psychiatry. Associate in Psychiatry, University Hospital*
- HYMAN JOSEPH ZIMMERMAN, A.B., M.D.  
*Clinical Instructor in Medicine. Associate in Medicine, University and Gallinger hospitals*

## ASSISTANTS

## ASSISTANTS IN RESEARCH AND INSTRUCTION

- THEODORE CRANDALL ALFORD, A.B., M.D.  
*Fellow in Surgery*
- GUY NEILL BERRY, B.S., M.D.  
*Fellow in Surgery*
- SAMUEL BESSMAN, M.D.  
*Fellow in Pediatrics*
- WILLIAM JAMES CANADY, B.S.  
*Graduate Assistant in Biochemistry*
- CLEM CASPER CROSSLAND, JR., M.D.  
*Teaching Fellow in Pathology*
- CHARLOTTE MOOAR DAMRON, M.S.  
*Teaching Fellow in Biochemistry*
- ABRAHAM WOLFFE DANISH, A.B., M.D.  
*Fellow in Gastroenterology*
- WILLIAM SHIBLEY ELIAS, A.B., M.D.  
*Fellow in Surgery*
- JANET WILSON HARTLEY, B.S.  
*Sanders Fellow in Bacteriology*



- CHARLES BERNARD KABAKER, A.B., M.D.  
*Fellow in Anesthesiology*
- JACK KLEH, A.B., M.D.  
*Research Fellow in Cardiology*
- NORMAN CLIFFORD KRAMER, M.S.  
*Sanders Fellow in Biochemistry*
- JOSEPH MICHAEL LoPRESTI, B.S., M.D.  
*Teaching Fellow in Pediatrics*
- HAROLD GEORGE MANDEL, Ph.D.  
*Research Associate in Pharmacology*
- JAMES PACKARD MANN, M.D.  
*Teaching Fellow in Pulmonary Diseases*
- LOUIS JOSEPH MICHINI, M.S.  
*Sanders Fellow in Bacteriology*
- DELORA FOWLER MOTT, M.D.  
*Fellow in Neurology and Neurological Surgery*
- LUIS GUILBALDO, MURILLO, B.S., M.D.  
*Fellow in Neurology*
- WILLIAM EDWARD NESSELL, A.B., M.D.  
*Fellow in Cardiology*
- EUGENE WORTHINGTON RICE, M.S.  
*Sanders Fellow in Biochemistry*
- JESUS SANCHEZ-PEREZ, M.D.  
*Fellow in Neurology and Neurological Surgery*
- JAMES ALLEN SARGENT, M.D.  
*Teaching Fellow in Pathology*
- MAURICE ARTHUR SISLEN, A.B., M.D.  
*Fellow in Pulmonary Diseases*
- JAMES ADAM SOWERS, A.B., M.D.  
*Teaching Fellow in Pathology*
- HAROLD WADE SPIES, B.S., M.D.  
*Fellow in Medicine*
- LASZLO NANDOR TAUBER, M.Ch., M.D.  
*Teaching Fellow in Neurological Surgery*
- EKREM SULEYMAN TURAN, M.D.  
*Research Associate in Obstetrics and Gynecology*
- FRANCES CHARLES BERNHARD WEINGARTEN, A.M.  
*Social Worker, Department of Psychiatry*
- LEILA HULBERT WELLS, A.B., M.D.  
*Teaching Fellow in Pathology*
- JOHN GRANT WILMER, A.B., M.D.  
*Research Fellow in Cardiology*



## TECHNICAL ASSISTANTS

James Crawford Bruce, *Laboratory Assistant in Animal Care*  
Winona Simonsen Jensen, A.B., *Technician in Medicine*  
Carroll Wirt Lawrence, *Technician in Bacteriology*  
Clarence Wilbur Miller, *Technician in Pathology*  
Cayetano Nagac, A.B., *Technician in Pathology*  
Janina Maria Gorczyca, *Technician in Neurology*

## ADMINISTRATIVE ASSISTANTS

Catherine Breen, *Assistant to the Dean of the School of Medicine*  
Sally Brewster Jamieson, A.B., B.S. in L.S., *Assistant Librarian, Medical Library*  
Laura Ellen Stewart, R.R.L., *Assistant in the Medical Library*  
Ella Paris Heard, R.N., *Executive Secretary, Postgraduate Department*  
Caroline Sykes, B.S., *Secretary*  
Shirley Thorne Eads, *Secretary*  
Joyce Elizabeth Smith, *Secretary*  
Margaret Mary Hartnett, *Secretary*  
Virginia Sutton Ringness, *Secretary*  
Alicia Frances Lacy, *Secretary*  
Doris Louise Trenton, *Secretary*



## THE SCHOOL OF MEDICINE

### THE FACULTY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Walter Andrew Bloedorn, A.M., M.D., Sc.D., *Dean of the School of  
Medicine*

Thomas Martin Peery, A.B., M.D., *Director of Postgraduate Instruction*

---

Joseph Hiram Roe, Ph.D., *Professor of Biochemistry*  
Walter Freeman, Ph.D., M.D., *Professor of Neurology*  
Walter Andrew Bloedorn, A.M., M.D., Sc.D., *Professor of Medicine*  
Errett Cyril Albritton, A.B., M.D., *Fry Professor of Physiology*  
Roger Morrison Choisser, B.S., M.D., *Professor of Pathology*  
Winfred Overholser, A.B., M.D., Sc.D., *Professor of Psychiatry*  
Leland Wilbur Parr, Ph.D., *Professor of Bacteriology*  
Frederick A. Reuter, M.D., *Professor of Urology*  
Harry Ford Anderson, M.D., *Professor of Dermatology and Syphilology*  
Daniel Bruce Moffett, A.B., M.D., *Professor of Oto-rhino-laryngology*  
John Parks, M.S., M.D., *Professor of Obstetrics and Gynecology*  
Preston Alexander McLendon, B.S., M.D., *Professor of Pediatrics*  
Ernest Alfred Watson Sheppard, M.D., C.M., *Professor of Ophthalmology*  
Brian Blades, A.B., M.D., *Professor of Surgery*  
Paul Kenneth Smith, Ph.D., *Professor of Pharmacology*  
James Winston Watts, B.S., M.D., *Professor of Neurological Surgery*  
Warren Andrew, Ph.D., M.D., *Professor of Anatomy*  
Thomas McPherson Brown, A.B., M.D., *Professor of Medicine*  
Chester Elwood Leese, Ph.D., *Professor of Physiology*  
Angus MacIvor Griffin, Ph.D., *Professor of Bacteriology*  
Radford Brown, M.D., *Clinical Professor of Obstetrics and Gynecology*  
Thomas Carlton Thompson, B.S., M.D., *Clinical Professor of Urology*  
Daniel LeRay Borden, A.M., M.D., *Clinical Professor of Surgery*  
Thomas Martin Peery, A.B., M.D., *Associate Professor of Pathology*  
Carleton Raymond Treadwell, Ph.D., *Associate Professor of Biochemistry*  
William Stanbro, M.D., *Associate Professor of Radiology*  
Charles Samuel Wise, B.S., M.D., *Associate Professor of Physical  
Medicine*  
William Staton Anderson, A.B., M.D., *Clinical Professor of Pediatrics*  
Victor Fred Ludewig, A.B., B.S., *Superintendent of the University Hos-  
pital*



## COMMITTEES \*

## THE DEAN'S COUNCIL

Joseph Hiram Roe

Winfred Overholser

Brian Blades

COMMITTEE ON ADMINISTRATION OF THE UNIVERSITY HOSPITAL AND  
OUTPATIENT DEPARTMENTWalter Andrew Bloedorn, *Chairman*

John Parks

Thomas McPherson Brown

Brian Blades

Victor Fred Ludewig

## COMMITTEE ON ADMISSIONS

Leland Wilbur Parr, *Chairman*

John Parks

Brian Blades

## COMMITTEE ON CURRICULUM

Thomas Martin Peery, *Chairman*

Leland Wilbur Parr

Thomas McPherson Brown

John Parks

Brian Blades

## COMMITTEE ON GRADUATE STUDIES

Errett Cyril Albritton, *Chairman*

John Parks

Angus MacIvor Griffin

## COMMITTEE ON LIBRARY

Chester Elwood Leese, *Chairman*

Thomas McPherson Brown

Carleton Raymond Treadwell

Thomas Martin Peery

Paul Calabrisi

John Parks

Brian Blades

Victor Fred Ludewig

## COMMITTEE ON RESEARCH

Brian Blades, *Chairman*

Roger Morrison Choisser

Thomas McPherson Brown

Angus MacIvor Griffin

\* The President of the University and the Dean of the School of Medicine are members ex officio of all committees.



COMMITTEE ON SCHOLARSHIP

John Parks, *Chairman*

Joseph Hiram Roe

Leland Wilbur Parr

Warren Andrew

COMMITTEE ON INTERN AND RESIDENT TRAINING

Victor Fred Ludewig, *Chairman*

Thomas Martin Peery

Brian Blades

John Parks

Thomas McPherson Brown

COMMITTEE ON HOSPITAL PRIVILEGES

Thomas McPherson Brown, *Chairman*

John Parks

Brian Blades

ADVISORY COMMITTEE ON POSTGRADUATE INSTRUCTION

Thomas Martin Peery, *Chairman*

Walter Freeman

Brian Blades

Winfred Overholser

Thomas McPherson Brown

John Parks

Harry Filmore Dowling

Ernest Alfred Watson Sheppard

Lewis Kaigler Sweet

GENERAL INFORMATION

INTRODUCTORY

The School of Medicine of The George Washington University was opened in March 1825; of the medical schools now in existence in the United States, it is the eleventh in chronological order of founding. The University Hospital and Dispensary were established in 1898 and made a part of the organization of the School.

The School is a member of the Association of American Medical Colleges and is one of the medical colleges which have been designated continuously as "class A" by the American Medical Association. The degrees of the School of Medicine are recognized by all state examining boards.

PLAN OF INSTRUCTION

The work of the School is organized under the following departments: Anatomy; Anesthesiology; Bacteriology, Hygiene, and Preventive Medicine; Biochemistry; Dermatology and Syphilology; Medicine; Military Science and Tactics; Neurology and Neurological Surgery; Obstetrics and Gynecology; Ophthalmology; Oto-rhino-laryngology; Pathology;



Pediatrics; Pharmacology; Physical Medicine; Physiology; Psychiatry; Radiology; Surgery; and Urology.

The salient features in the method of instruction are thorough laboratory training, demonstrations, and clinical teaching, with recitations and lectures to clarify the many problems presented. Courses of clinical instruction are included in the announcements of the clinical departments. The clinical material in the various hospitals and outpatient departments is utilized to the fullest extent for both clinical instruction and laboratory work.

Each of the first three years of the medical curriculum is divided into two terms of sixteen weeks. The senior year includes, in addition, an eight-week summer term. One half of the senior class will begin the summer term immediately upon completion of the junior year; the other half will begin eight weeks later. Within certain limitations, the students may elect the period of attendance and the service of their assignment. There will be no formal classes or examinations during this period.

#### EQUIPMENT AND FACILITIES

*The George Washington University Hospital.*—The hospital, with a capacity of 400 beds, was opened in 1948. This splendid edifice, which is one of the outstanding hospitals in the United States, is completely furnished with the latest and most scientific apparatus and equipment. Its purpose is to supplement existing hospital resources in the District of Columbia for the care of the sick and the injured; the education of physicians, nurses, and technicians; and the advancement of medical knowledge.

The hospital is staffed and controlled by the Faculty of the George Washington University School of Medicine and it provides excellent clinical material for the instruction of medical students. Virtually every specialty in the fields of medicine and surgery has assigned space and equipment in both the outpatient department and the bed-patient section of this modern institution.

*Medical School Building.*—The building housing the School of Medicine is a five-story structure with lecture rooms and classrooms, laboratories, and students' rooms.

*Laboratories.*—A four-story laboratory building is adjacent to the main medical building. The major laboratories are for anatomy, histology and embryology, bacteriology, hygiene and preventive medicine, biochemistry, pathology, pharmacology and physiology, and clinical microscopy. They are fully equipped to enable students to pursue adequately the laboratory courses and to acquire the technical skill necessary in modern clinical and investigative work.

*Research Building.*—The Research Building houses the George Wash-



ington University Cancer Clinic and special laboratories concerned with the biochemical, physiological and cytological aspects of cancer research; the surgical and anesthesia research laboratories; a laboratory for radio-isotope investigation; and research laboratories of the Physiology, Neurology and Cardiovascular departments.

*Medical Library.*—The Medical Library contains a selected reference collection of more than 10,000 volumes, currently obtains important new medical works, and regularly receives the principal medical journals.

Inter-library loan service is maintained by close cooperation with other medical and scientific libraries throughout Washington and vicinity.

The Medical Library is open from 9:00 A.M. to 9:00 P.M. each class day, Monday through Friday, and from 9:00 A.M. to 1:00 P.M. Saturday.

The Medical Library maintains a branch in Room 6037-A of the University Hospital for reference, research and inter-library loan service. It is open from 2:00 to 6:00 P.M. Monday through Friday.

#### GOVERNMENT LIBRARIES AND MUSEUMS

The Library of the Surgeon General's Office of the United States Army is the most complete general medical library in the world. In addition to its great collections of medical works, all leading medical periodicals of the world are available. This Library, as well as the Library of Congress, the Public Library, and the many excellent libraries of the various government departments, is available to students and teachers through a service maintained by the Medical School Library.

The Army Medical Museum affords opportunity for studying the conditions met in military and general medicine and surgery. Its collection of anatomical and pathological specimens is unequaled by any other museum in this country. The Museum of Hygiene, the National Museum, the Smithsonian Institution, the Botanic Gardens and the Department of Agriculture all afford opportunities for study in Medicine and its allied sciences.

#### CLINICS

The city of Washington, with about a million inhabitants, provides ample clinical material. The University Hospital and Outpatient Department furnish clinical facilities and a large proportion of the materials studied in the courses in pathology and clinical pathology.

*The University Hospital.*—All clinics are under the supervision of the Dean, who is also Medical Director of the Hospital. This insures the highest possible utilization of available clinical material for teaching purposes and the proper supervision of clinicians and students; it brings the individual student into direct contact with patients and requires him to do, under authoritative supervision, the clinical and laboratory work necessary for diagnosis and treatment; and it permits proper interpreta-



tion of the conditions occurring during the progress of cases and promotes the keeping of adequate records. Clinical and clinico-pathological conferences are held in which the history of cases, the physical findings, laboratory records, and the post-mortem pathology when available, are presented and correlated.

*The Outpatient Department.*—The Outpatient Department has clinical facilities for each Service in the Hospital. Fourth-year students are assigned in rotation by section for clinical instruction in the Outpatient Department.

*Cancer Clinics.*—The facilities of the Cancer Detection Clinic are available to medical students. In addition the diagnosis and treatment of various forms of neoplasms are presented. The results of the treatment of neoplasms are evaluated by follow-up studies.

The Helen L. and Mary E. Warwick Memorial, for cancer and allied diseases, was affiliated with The George Washington University in July 1948. The purposes of this clinic are (1) to provide care for cancer patients, through group consultations within a cancer organization, and (2) to provide training for physicians in the field of oncology.

*Gallinger Municipal Hospital.*—Clinical instruction is available in all branches of medicine. A great wealth of clinical material is afforded in this hospital and by ordinance of the municipal authorities of the District of Columbia, members of the Faculty of this School of Medicine, who are nominated by this University, are assigned approximately one-third of the patients for treatment and clinical study. Third-year students serve their clinical clerkships at this institution.

*Childrens Hospital.*—Clinical instruction in pediatrics, dermatology, and orthopedic surgery.

*Emergency Hospital and Central Dispensary.*—Clinical instruction in medicine, surgery, and the specialties.

*St. Elizabeths Hospital.*—Clinical instruction in mental and nervous diseases, medicine, post-mortem work, and gross pathology. This hospital with 6,577 beds, is maintained by the United States Government. The psychiatric clinic is one of the largest in the world.

*Mt. Alto Hospital.*—Clinical instruction in medicine and surgery is available and fourth-year students are assigned in rotation by sections for clinical clerkships.

*Walter Reed General Hospital.*—Clinical instruction is available in all branches of medicine and surgery. Fourth-year students are assigned in rotation by sections for clinical instruction.

#### ADMISSION

Ninety hours of credit applicable toward a degree in this University or another college of liberal arts and sciences are required for admission to the School of Medicine.



A credit hour represents one class hour or a minimum of two laboratory hours a week for a period of one term of approximately fifteen weeks.

#### SPECIFIC EDUCATIONAL REQUIREMENTS

##### Secondary School Requirements

Of the fifteen secondary school units required, three must be in English, two in one foreign language (ancient or modern), one in algebra, one in geometry, one in history, and one in science (biology, botany, chemistry, or physics). Eleven of the units offered must be in English, foreign language, mathematics, science, and history.

##### Premedical College Requirements

#### NINETY CREDIT HOURS

1. Chemistry, sixteen credit hours as follows: (a) eight credit hours in general inorganic chemistry of which at least four credit hours are laboratory work (qualitative analysis may be counted as general inorganic chemistry); (b) eight credit hours or a one-year college course of organic chemistry, including laboratory work.

2. Physics, eight credit hours, of which at least two credit hours are laboratory work. It is recommended that this course be preceded by one in trigonometry.

3. Biology, eight credit hours, of which at least four credit hours are laboratory work. This requirement may be satisfied by a course of eight credit hours in either general biology or zoology, or by four credit hours each in zoology and botany, but not by botany alone.

4. English composition and literature, six credit hours: the usual introductory college course or the equivalent. The student should develop facility in speaking and writing English.

5. Modern foreign language: a reading knowledge, preferably of French or German.

6. Electives. It is recommended that the remaining credit hours required include: (a) comparative vertebrate anatomy; (b) qualitative and quantitative chemical analysis; (c) social science and psychology.

#### ADVANCED STANDING

A student who has satisfactorily attended one or two years at any other "class A" medical school, and who has the necessary preliminary educational requirements, may be admitted to advanced standing.



## APPLICATION FOR ADMISSION

1. Full directions for application will be furnished on request. The applicant should ask the registrar of each college previously attended to send an official transcript of record to the Director of Admissions, The George Washington University. Photostatic copies of credentials without the original signature of the certifying authority are not satisfactory. It is the responsibility of the applicant to see that all credentials are forwarded to the Admissions Office of the University.

2. A recent photograph, with signature, is required of each applicant.

3. As the number of qualified applicants for admission to the School each year far exceeds its capacity, the candidate for admission should secure from the colleges attended completely compiled premedical credentials and send them for evaluation well in advance of the term for which he is applying.

4. Applicants for admission are urged to take the Medical College Aptitude Test of the Association of American Medical Colleges.

5. A fee of \$3 to defray the costs of completing the records for final consideration for admission must accompany each application.

## REGISTRATION

For the academic year 1950-51, registration will be conducted at the Medical School, 1335 H Street NW., from 2:00 to 4:00 p.m., September 14 and 15. Registration is for a period of one academic year.

## FEES AND FINANCIAL REGULATIONS

The following fees have been adopted:

Tuition fee, for each academic year.....	\$650.00
Fee for special examinations, for each subject.....	5.00
Graduation fee .....	20.00

## PAYMENT OF FEES

Fees for each term are \$325, payable in advance.

All fees are payable at the Office of the Cashier of the University, 725 Twenty-first Street NW. Fees due must be paid at the time of registration; no student is permitted to complete registration or to attend classes until fees are paid.

Registration in the School of Medicine is for a period of one academic year. After the student has entered the courses of instruction he is obligated for the full tuition for the academic year. No part of the tuition will be refunded upon withdrawal or dismissal for any cause. Acceptance by the School of a student's fees does not in any way obligate



the School to accept the student for any subsequent year, and the right is reserved to drop any student from the School whenever, in the interest of the student or the School, the Faculty deems it advisable to do so.

On account of the many applications for admission, and as the size of each class is limited, places can be reserved only for those qualified applicants who remit a deposit of \$100 which will be credited toward the tuition of the first term. Should unusual circumstances arise whereby the matriculant is unable to attend, this initial payment, less a charge of \$50 for registration, transfer, etc., will be returned up to one month before the opening of the session.

Students will be required to pay for injury to apparatus and other University property. All breakage and loss not directly traceable to an individual student are assessed pro rata. Each student is required, at the completion of laboratory courses, to replace or pay for all articles of equipment which he has lost, broken, or destroyed. Credit for work will not be given until this is done.

#### COST OF TEXTBOOKS AND STUDENT EQUIPMENT

The minimum cost of necessary textbooks and student equipment (microscope, drawing materials, glass slides, clinical thermometer, stethoscope, hemocytometer, etc.) is approximately as follows: first year, \$400; second year, \$250; third year, \$90; fourth year, \$80; total, \$820.

A fee of \$1 a term is charged for the use (optional) of a locker.

#### LOAN FUNDS

For information concerning loan funds consult the Chairman of the Committee on Student Loans and Scholarships, The George Washington University.

#### REGULATIONS

*Students in the School of Medicine are subject to, and are expected to familiarize themselves with, the general University regulations stated in the University Catalogue.*

#### ABSENCE

Absence is not allowed unless an excuse is obtained from the Dean or the instructor.

Absence consists in being away from a class or clinic during a scheduled period, entering after the class or clinic has begun, or leaving before either is dismissed.

Excuse for absence due to sickness must be accompanied by a certificate signed by the attending physician and must be filed in the Office of the Dean.



For every unexcused absence a department will deduct one-half of one per cent from the student's final grade in the subject involved.

#### GRADES

The following grading system is used: *A* (90-100); *B* (80-89); *C* (75-79); *D* (65-74) condition; *E* (below 64) failure; *Inc.*, incomplete. The passing grade in each subject is *C*.

A student who is conditioned in any subject will not be advanced until such condition is removed and then only by authority of the Committee on Scholarship. All conditions must be removed at the next make-up examination period provided for this purpose.

#### EXAMINATIONS

Examinations, which may be written, oral, or practical, will be held at the end of each term.

A student who fails to appear at a regularly scheduled final examination will not be examined until the next regular examination, except by special permission of the Committee on Scholarship. For make-up examinations to remove conditions, a fee of \$5 will be charged for each subject.

All students in the School of Medicine are required to take Part I and Part II of the National Board Examinations, except that students from those states and foreign countries which do not recognize the National Board may be exempted from Part II by action of the Committee on Scholarship.

#### HEALTH ADMINISTRATION

The University maintains a health service that is primarily diagnostic in its intent. It also provides first aid in the event of an emergency.

Medical privileges include: (1) the physical examination of all entering students; (2) three visits by the University physician or surgeon, office or residence (District of Columbia) in any one illness, exclusive of a specialist, surgical operation, laboratory, or X-ray examination; (3) hospitalization, including board, medicine, and nursing in the University Hospital for not more than two weeks during an academic year—the necessity to be determined by the Director of Health Administration. The duration of hospitalization period (maximum, two weeks) is also to be determined by the Director of Health Administration.

This medical benefit does not apply to illness or disability incurred previous to the University term or prior to payment of the University registration fee.

Students are allowed, if they so desire, to engage physicians and nurses



of their own choice, but when they do so they will be responsible for the fees charged.

Rules: (1) The Director of Health Administration is empowered to limit or deny the medical benefits where, in his discretion, a student has, by his misconduct or breach of the rules of the University, made himself ineligible; (2) the Director of Health Administration has authority to determine the necessity and length of hospitalization; (3) students who have severed their connection with the University are ineligible for medical benefits.

#### PHYSICAL EXAMINATIONS \*

All first-year students are given a comprehensive physical examination by the Department of Health Administration upon admission to the School of Medicine. The students are informed of the findings and advised regarding such measures as will tend to maintain a high standard of health.

In addition medical students benefit from the complete Tuberculosis Case Finding Program which the School has maintained since 1938-39. Under this program all students receive tuberculin tests, X-ray examinations, and such special attention from chest specialists as is necessary to reduce to a minimum the dangers from tuberculosis to which medical students are believed to be subject. Students are immunized against those diseases for which proven prophylactics exist.

#### AWARDS

*John Ordronaux Prize.*—This prize of \$70 is awarded annually to the member of the graduating class of the School of Medicine who has completed the four-year medical course with the highest scholastic standing.

*Anna Bartsch Scholarship.*—This scholarship, in the amount of \$500, established in 1946 by Dr. Anna Bartsch-Dunne as a memorial to her mother, Anna Bartsch, is awarded annually to a woman in the School of Medicine "of outstanding scholarship, character, and promise, who intends to make the practice of medicine her life profession."

*Anna Bartsch Internship.*—In memory of her mother, Anna Bartsch, Dr. Anna Bartsch-Dunne established in 1946 a fund to aid in the support of an internship. This aid, in the amount of \$15 a month, is awarded annually to a woman holding an internship in the University Hospital.

\* A charge of \$2 is made if a student fails to appear for a physical examination during the period set for this purpose.



## HONOR SOCIETIES

*William Beaumont Medical Society.*—Medical students showing unusual ability are elected by the active members of this society, which was founded to encourage and stimulate individual investigation.

*Howard Kane-A. F. A. King Obstetrical Society.*—The fifteen students in the third and fourth year classes who maintain the highest grades in their work in obstetrics are eligible for membership.

*Smith-Reed-Russell Society.*—Students of the third and fourth years who maintain a scholastic average of 86 per cent are eligible for associate membership.

## RESERVE OFFICERS' TRAINING CORPS, U. S. ARMY, MEDICAL UNIT

A Medical Unit of the Reserve Officers' Training Corps is established in this School by authority of the Secretary of the Army, and an officer of the Medical Corps of the Army is detailed to the University for supervision and instruction of the unit.

The instruction is divided into two two-year courses, the basic and the advanced. Each course consists of 90 hours—58 hours of prescribed medical instruction given by the Medical School and 32 hours of military medical instruction. Students who satisfactorily complete the basic course may, up to the quota allowed by the Department of the Army, enter the advanced course. Students in the advanced course receive, from the Government, a stipend of approximately \$700.

Students in the advanced course are required to complete the course and to attend a summer training period of six weeks.

A student who successfully completes the course is recommended for a commission in the Medical Corps Reserve, if he desires appointment. It is the policy of the Department of the Army to give preference to graduates of this course in the selection for Army internship.

Membership in the Unit, which is voluntary, is open to any physically fit male student who is a citizen of the United States and who is, at the time of enrollment, within the following specified age limits: under 26 years of age for the basic course, under 29 for the advanced course. For veterans of World War II, there is no age limit until January 1, 1952, for the advanced course. Veterans with a minimum of six months' service receive credit for the first year of the basic course; those with a minimum of twelve months' service receive credit for both years of the basic course.

## LIVING ACCOMMODATIONS

*Women Students.*—Women students under twenty-one years of age who are enrolled for twelve or more credit hours of academic work in the University must have their residences approved by the Director of



Activities for Women before their registrations can be completed. In the women's residence halls, single rooms are \$30 and \$35 a month; double rooms are \$23 and \$28 a month a person. Meals are served at the Student Union. Applications for rooms should be made well in advance. Forms for application, together with detailed information, may be obtained from the Director of Activities for Women.

*Men Students.*—Welling Hall provides double room facilities for 102 students. Dining facilities are available to all residents of this dormitory. Rooms rent for \$24 a month a person. Single and double rooms are provided for 203 students in Draper and Bradley Halls. These are temporary dormitories and residence is restricted to veterans of World War II who are enrolled for a minimum of twelve credit hours of academic work in the University. Single rooms are \$17 a month; double rooms are \$13 a month a person. The University maintains a limited number of temporary apartment units for married veteran students and their families subject to the same requirements for tenancy as above. Meals are served at the Student Union.

Application forms for reservations may be obtained from Director of Activities for Men, Building R.

---

Information concerning private rooming and boarding facilities near the University for women students twenty-one years of age or older and for men students may be obtained at the offices of the Director of Activities for Women and the Director of Activities for Men. The reservation of rooms in private houses must be made by students.

## THE DEGREE OF DOCTOR OF MEDICINE

Upon the satisfactory completion of the requirements of the School of Medicine, the degree of Doctor of Medicine is conferred.

### REQUIREMENTS FOR THE DEGREE

Every candidate for graduation with the degree of Doctor of Medicine must be at least twenty-one years of age, of reputable character, and free of all indebtedness to the University. He must have satisfied the admission requirements, completed satisfactorily not less than four academic years of study as a matriculated student in Medicine, completed all required courses, and passed satisfactorily all prescribed examinations.

### COMBINED ARTS AND MEDICINE CURRICULUM

In order to be recommended for the degree of Bachelor of Arts, the candidate must complete at least ninety credit hours of prescribed college



work (at least thirty credit hours and one year of residence must be completed in Columbian College, the senior liberal arts college), and the first year of the medical curriculum. Upon satisfactory completion of the fourth year of the medical curriculum the student becomes eligible for the degree of Doctor of Medicine.

#### HONORS

A candidate who has completed the four-year medical course with an average grade of *A* may be recommended for graduation "with distinction."

#### INTERN AND RESIDENT TRAINING PROGRAM

The George Washington University offers twenty internships which are divided into two categories of ten straight medical and ten straight surgical. All interns, regardless of the Service to which they are assigned, will be given a period of training in obstetrics and gynecology.

Accredited resident training will be offered in Anesthesiology, Medicine, Neurology, Obstetrics and Gynecology, Ophthalmology, Oral Surgery, Pathology, Radiology, and Surgery.

#### POSTGRADUATE INSTRUCTION

The School of Medicine offers annually a series of short intensive postgraduate courses, varying somewhat from year to year. The series is designed for physicians in practice. The significant advances in the various specialties are presented, together with summaries of older information. A distinguished Guest Faculty supplements the Staff of the Medical School.

The Kellogg Medical Lectures, inaugurated in 1948, are a series of evening lectures and clinics, designed primarily for physicians practicing in Washington and vicinity. They are also attended by the Faculty, postgraduate students, and members of the senior class of the School of Medicine.

During the academic year 1948-49 approximately 500 physicians were enrolled in postgraduate courses. For application blanks and further information, address the Director of Post Graduate Instruction, 1335 H Street NW., Washington 5, D. C.

#### TECHNICIAN TRAINING COURSES

##### ORTHOPTIC TECHNICIAN TRAINING COURSE

A six-month course, of 675 hours of clinical and classroom work, is offered for the training of orthoptic technicians by the Department of Ophthalmology.



MEDICAL TECHNOLOGISTS COURSE

The course for medical technologists consists of twelve consecutive months of didactic and practical work in all phases of clinical laboratory technique. The course meets the full requirements of the Registry of Medical Technologists of the American Society of Clinical Pathologists. Prerequisites are 60 credit hours (two academic years) of college work including required credits in biology and chemistry.

Two classes are accepted each year, one entering in September and the other in February. Enrollment in each class is strictly limited so that personal instruction can be given.

Upon satisfactory completion of the course a certificate is awarded and the candidate is eligible for the certifying examination given by the Registry of Medical Technologists.

For application blanks and further information, address the Director of Laboratories, The George Washington University Hospital, Washington 7, D. C.



## COURSES OF INSTRUCTION

On the following pages of this BULLETIN, under the alphabetically arranged names of the departments of instruction, are listed the courses of instruction offered by the School of Medicine. The courses here listed are subject to some slight change. The University reserves the right to withdraw any course announced.

### EXPLANATION OF COURSE NUMBERS AND SYMBOLS

The number which precedes the name of a course indicates the term of the academic year in which the course is offered. An odd number indicates that the course is offered in the fall term; an even number, that it is offered in the winter term; and a double number (e.g., 343-44), that it begins in the fall term and continues in the winter.

A number in parentheses after the name of a nonprofessional course, indicates credit hours.

First-year courses are numbered from 101 to 200; second-year courses, from 201 to 300; third-year courses, from 301 to 400; and fourth-year courses, from 401 to 500.



## ANATOMY

Warren Andrew, Ph.D., M.D., *Professor of Anatomy, Executive Officer*  
 Ross Clayton MacCardle, Ph.D., *Professorial Lecturer in Anatomy*  
 Webb Edward Haymaker, M.S., M.D., *Professorial Lecturer in Anatomy*

Paul Calabrisi, A.M., *Associate Professor of Anatomy*  
 Ivor Cornman, Ph.D., *Assistant Research Professor of Anatomy*  
 Merton Theodore Waite, M.D., *Instructor in Anatomy*  
 Victor Henry Esch, M.D., *Instructor in Anatomy*  
 Wilfred Walter Eastman, M.D., *Instructor in Anatomy*

### 101-2 *Gross Anatomy*

Calabrisi and Staff

Regional dissection of the human body supplemented with lectures and quiz sections. Study of X-ray anatomy to emphasize the functional aspects of the position, shape, and relation of the viscera and skeletal components. Eighteen hours a week, fall term; nine hours a week, winter term.

### 103 *Human Embryology*

Andrew and Staff

The origin and development of the human body. Special emphasis on the value of embryology in interpreting anatomical anomalies and variations as seen in gross dissection, surgery, obstetrics, and pathology. Three hours a week.

### 105 *Neuro-anatomy*

Haymaker and Staff

The macroscopic and microscopic study of the central nervous system and the special sense organs. Emphasis on such dynamic aspects as development, pathways, lesions, etc. Six hours a week.

### 106 *Microscopic Anatomy*

Andrew and Staff

Study of the detailed minute structure of cells, tissues, and organs of the human body with emphasis on the relation of structure to function. Recognition and interpretation of histological sections tested by practical examinations. Six hours a week.

### 201-2 *Seminar*

Andrew and Staff

Reports and discussions of special topics by the staff and graduate students. Regular medical students are encouraged to attend. One hour a week.

### 295-96 *Research*

Andrew and Staff

Hours and credits to be arranged.

### 299-300 *Thesis (3-3)*

The Staff



## ANESTHESIOLOGY

Lloyd Harvey Mousel, M.S., M.D., *Professor of Anesthesiology*  
 Donald Harrison Stubbs, A.M., M.D., *Clinical Professor of Anesthesiology*  
 Charles Seymour Coakley, M.D., *Assistant Professor of Anesthesiology, Acting Executive Officer*  
 William Eldridge Bageant, M.D., *Clinical Instructor in Anesthesiology*  
 Allen Widome, M.D., *Clinical Instructor in Anesthesiology*  
 Seymour Alpert, A.B., M.D., *Instructor in Anesthesiology*  
 Charles Bernard Kabaker, A.B., M.D., *Fellow in Anesthesiology*

261 *Anesthesiology* The Staff  
 Review of basic sciences and correlation between basic sciences and clinical work. One hour a week.

433-34 *Advanced Anesthesiology* The Staff  
 Fourth-year students are rotated through the work of the department for a period of three weeks for two students and assigned to work in operating rooms, conferences, and seminars.

480 *Research* The Staff  
 Hours to be arranged.



## BACTERIOLOGY, HYGIENE, AND PREVENTIVE MEDICINE

Leland Wilbur Parr, Ph.D., *Professor of Bacteriology, Executive Officer*  
Ralph Gregory Beachley, M.D., Dr.P.H., *Adjunct Professor of Public  
Health Practice*

Angus MacIvor Griffin, Ph.D., *Professor of Bacteriology*

Mary Louise Robbins, Ph.D., *Assistant Professor of Bacteriology*

Lewis Walke McIlhany, M.S., M.D., *Clinical Instructor in Public  
Health Practice*

William Gray McCarten, M.S., *Associate in Bacteriology*

Louis Joseph Michini, M.S., *Sanders Fellow in Bacteriology*

Janet Wilson Hartley, B.S., *Sanders Fellow in Bacteriology*

### SEMINAR LECTURERS

Charles Armstrong, B.S., M.D., Sc.D., *Professorial Lecturer in Pre-  
ventive Medicine*

Rolla Eugene Dyer, A.B., M.D., LL.D., *Professorial Lecturer in Pre-  
ventive Medicine*

Royd Ray Sayers, A.M., M.D., *Professorial Lecturer on Industrial  
Hygiene*

Sara Elizabeth Branham, Ph.D., M.D., Sc.D., *Professorial Lecturer in  
Preventive Medicine*

Chester Wilson Emmons, Ph.D., *Professorial Lecturer on Medical My-  
cology*

Willard Hull Wright, D.V.M., Ph.D., *Professorial Lecturer on Medical  
Zoology*

John Roderick Heller, Jr., B.S., M.D., *Professorial Lecturer on Venereal  
Disease Control*

Carl John Lauter, M.S., *Professorial Lecturer on Municipal Sanitation*

Robert Carter Cook, *Professorial Lecturer on Medical Genetics*

Robert Hanna Felix, M.D., M.P.H., *Professorial Lecturer on Mental  
Hygiene*

### 112 *General Bacteriology* (4)

Robbins

A study of the fundamentals of bacteriology, including hygienic appli-  
cations. Methods of cultivation and control of several groups of  
microorganisms are studied in the laboratory. Prerequisite: any bio-  
logical laboratory science; Chemistry 151-52. Laboratory fee, \$7.50.  
Tues., Thurs., and Sat., 9:10 to 12:00 A.M.



- 209 *Medical Microbiology* (1-11) Parr, Griffin  
Bacteria, rickettsia, viruses, yeasts, molds, protozoa, and metazoa which relate to the health and diseases of man—cultural study of most important forms; methods of diagnosis by microscopic, cultural, immunologic, and animal reactions; theory and methods of immunology; vaccines; serums; antibiotics. Open to suitably prepared graduate students; may be elected as a whole or in part by adding the appropriate letter to the course number, with credit allocated as follows: (a) *Bacteriology*, including rickettsia and viruses (7); (b) *Parasitology*, including medical mycology (3); (c) *Immunology* (1). Time to be arranged.
- 210 *Fundamentals of Epidemiology and Public Health* (2) Parr  
Sources, modes, and implications of infection and injury. Prerequisite: Bacteriology 112 or 209. Mon., 2:00 to 4:00 P.M.
- 219-20 *Advanced Microbiology* Griffin and Staff  
Special study of advanced methods and current problems in microbiology for suitably qualified students specializing in microbiology. Prerequisite: Bacteriology 112 or 209; Chemistry 151-52 or the equivalent; permission of the instructor. Time and credits to be arranged.
- 229 *Virus Techniques* (3) Robbins  
Principal cultural and serological methods used in the study of viruses and rickettsiae. Prerequisite: Bacteriology 112 or 209 and permission of the instructor. Offered in 1950-51 and alternate years. Time to be arranged.
- 230 *Statistics in Microbiology* (3) Griffin  
The application of statistical methods to the problems of microbiology. Prerequisite: entrance or elementary college algebra. Offered in 1951-52 and alternate years.
- 232 *Immunological Methods* (3) Griffin  
Preparation and testing of serological materials. Demonstration of basic serological phenomena. Prerequisite: Bacteriology 112 or 209 and permission of the instructor. Offered in 1950-51 and alternate years. Time to be arranged.
- 295-96 *Research in Bacteriology* The Staff  
Time and credits to be arranged.
- 299-300 *Thesis* (3-3) The Staff
- 305-6 *Staff Seminar* (1-1) The Staff  
Bi-weekly throughout the year.
- 401-2 *Public Health Practice* (1-1) Beachley  
Study of public health practice at national, state, city, and county levels. Public and private agencies. Sat., 10:00 A.M.
- 404 *Industrial Hygiene* (1) Sayers  
For senior medical students and qualified graduate students. Lecture course dealing with the problems of health maintenance and disease prevention and cure as affected by industry. Time to be arranged.



## BIOCHEMISTRY

Joseph Hiram Roe, Ph.D., *Professor of Biochemistry, Executive Officer*  
 Arnold Kent Balls, Ph.D., *Professorial Lecturer in Biochemistry*  
 William Henry Sebrell, Jr., M.D., *Professorial Lecturer on Nutrition*  
 George Washington Irving, Jr., Ph.D., *Professorial Lecturer on Proteins*  
 Bernard Leonard Horecker, Ph.D., *Professorial Lecturer on Enzymes*  
 Carleton Raymond Treadwell, Ph.D., *Associate Professor of Biochemistry*

Mary Barbara Mills, Ph.D., *Assistant Professor of Biochemistry*  
 Benjamin Williams Smith, B.S., M.S., *Instructor in Biochemistry*  
 Charlotte Mooar Damron, M.S., *Teaching Fellow in Biochemistry*  
 Eugene Worthington Rice, M.S., *Sanders Fellow in Biochemistry*  
 Norman Clifford Kramer, M.S., *Sanders Fellow in Biochemistry*  
 William James Canady, B.S., *Graduate Assistant in Biochemistry*

- 113-14 *Biochemistry* Roe and Staff  
 Physiological and clinical chemistry for the first-year medical student.  
 Two lectures and two three-hour laboratory periods a week.
- 221-22 *Biochemistry (4-4)* Treadwell  
 A lecture and laboratory course for nonmedical students. Prerequisite: Chemistry 22 and 152. Material fee, \$12 a term. Tues and Thurs., 9:00 to 12:00 A.M. and 1:00 to 2:00 P.M.
- 224 *Biochemistry of the Enzymes* Horecker  
 Lecture course dealing with the biochemistry of the enzymes and enzyme reactions. Prerequisite: Biochemistry 113 or 221.
- 225 *Biochemical Preparations* The Staff  
 Material fee, \$10. Time and credits to be arranged.
- 226 *Biochemical Laboratory Methods* The Staff  
 Material fee, \$12. Time and credits to be arranged.
- 227-28 *Biochemistry Seminar (1-1)* Roe  
 The current literature in the field of biochemistry, mainly for graduate students, but open to a limited number of specially qualified medical students. Fri., 4:45 P.M.
- 231 *Proteins and Amino Acids (1)* Irving  
 A lecture course. Prerequisite: Biochemistry 114 or 222. Mon., 4:45 P.M.
- 295-96 *Research in Biochemistry* Roe, Treadwell  
 Time and credits to be arranged.
- 299-300 *Thesis (3-3)* Roe
- 404 *Applied Nutrition (1)* Sebrell  
 For senior medical students and graduate students. Lecture course upon dietary requirements, deficiency diseases, and therapeutic diets. Prerequisite: Biochemistry 114 or 222. Sat., 10:00 A.M.



## DERMATOLOGY AND SYPHILOLOGY

Harry Ford Anderson, M.D., *Professor of Dermatology and Syphilology, Executive Officer*

George William Creswell, A.B., M.D., *Assistant Clinical Professor of Dermatology and Syphilology*

Hayden Kirby-Smith, B.S., M.D., *Assistant Clinical Professor of Dermatology and Syphilology*

Theodore Claremont Chen Fong, M.D., *Associate in Dermatology and Syphilology*

James Quincy Gant, Jr., M.S., M.D., *Associate in Dermatology and Syphilology*

Wendell Melvin Willett, M.D., *Associate in Dermatology and Syphilology*

Reuben Goodman, M.D., *Clinical Instructor in Dermatology and Syphilology*

313-14 *Dermatology and Syphilology* The Staff  
Lectures on diseases of the skin and syphilis. One hour a week.

316 *Neurosyphilis* Fong  
Lectures, clinical demonstrations, and practical diagnostic and therapeutic procedures. One hour a week for eight weeks.

317-18 *Clinic* The Staff  
Case demonstrations, diagnosis, and treatment of skin diseases and syphilis. Three hours a week. Gallinger Hospital.

407-8 *Clinic* The Staff  
Dermatology and syphilology in infants and children. Childrens Hospital. Two hours a week.

409-10 *Clinic* The Staff  
Clinical demonstration, diseases of the skin. Two hours a week. Emergency Hospital.

411-12 *Clinic* The Staff  
Clinical demonstrations, diseases of the skin, and diagnosis and therapy of syphilis. Two hours a week. University Hospital.



## MEDICINE

- Walter Andrew Bloedorn, A.M., M.D., Sc.D., *Professor of Medicine*  
 Thomas McPherson Brown, A.B., M.D., *Professor of Medicine, Executive Officer*  
 Charles Robert Lee Halley, A.B., M.D., *Clinical Professor of Medicine*  
 Paul Frederick Dickens, M.D., *Clinical Professor of Medicine*  
 Harry Filmore Dowling, A.B., M.D., *Clinical Professor of Medicine*  
 Benjamin Frank Miller, B.S., Chem. Eng., M.D., *Clinical Professor of Medicine*  
 Clayton Bernard Ethridge, M.D., *Clinical Professor of Medicine*  
 Sol Katz, B.S., M.D., *Adjunct Clinical Professor of Medicine*  
 Harry Eagle, A.B., M.D., *Adjunct Clinical Professor of Medicine*  
 Louis Katz Alpert, B.S., M.D., *Adjunct Clinical Professor of Medicine*  
 Joseph Francis Sadusk, Jr., A.B., M.D., *Adjunct Clinical Professor of Medicine*  
 Joseph Francis Fazekas, B.S., M.D., *Adjunct Clinical Professor of Medicine*  
 Clark Harvey Yeager, M.D., Dr.P.H., *Professorial Lecturer on Tropical Medicine*  
 Norman Hawkins Topping, A.B., M.D., *Professorial Lecturer on Rickettsial Diseases*  
 Monroe James Romansky, A.B., M.D., *Associate Professor of Medicine*  
 Peter Diacoumis Comanduras, M.D., M.S., *Associate Clinical Professor of Medicine*  
 Walter Kendall Myers, B.S., M.D., *Assistant Clinical Professor of Medicine*  
 John Alton Reed, A.B., M.D., *Assistant Clinical Professor of Medicine*  
 Theodore Judson Abernethy, B.S., M.D., *Assistant Clinical Professor of Medicine*  
 William Travis Gibb, A.B., M.D., *Assistant Clinical Professor of Medicine*  
 John McCallum Evans, A.B., M.D., *Assistant Clinical Professor of Medicine*  
 Roy Hertz, Ph.D., M.D., *Assistant Clinical Professor of Medicine*  
 Carl Leonard Larson, B.S., M.D., *Assistant Clinical Professor of Medicine*  
 Carl Calvin Dauer, A.B., M.D., M.P.H., *Assistant Clinical Professor of Medicine*  
 Samuel Ross Taggert, M.D., *Assistant Clinical Professor of Medicine*  
 Alfred Henry Lawton, M.D., Ph.D., *Assistant Clinical Professor of Medicine*  
 Benjamin Manchester, M.D., *Assistant Clinical Professor of Medicine*



Irving Wolfe Winik, M.D., *Assistant Clinical Professor of Medicine*  
Clarence Richard Hartman, A.B., M.D., *Assistant Clinical Professor of Medicine*

John Minor, A.B., M.D., *Associate in Medicine*  
Watson William Eldridge, Jr., M.D., *Associate in Medicine*  
Maurice Protas, A.B., M.D., *Associate in Medicine*  
Pearl Holly, M.S., M.D., *Associate in Medicine*  
Lawrence Jay Thomas, B.S., M.D., *Associate in Medicine*  
James Joseph Feffer, A.B., M.D., *Associate in Medicine*  
Lawrence Elias Putnam, A.B., M.D., *Associate in Medicine*  
John Watkins Trenis, A.B., M.D., *Associate in Medicine*  
Bernard Lauriston Hardin, Jr., A.B., M.D., *Associate in Medicine*  
Andrew Gabriel Prandoni, B.S., M.D., *Associate in Medicine*  
Charles William Ordman, A.B., M.D., *Associate in Medicine*  
Ruth Hechler Wichelhausen, M.D., *Associate in Medicine*  
Albert David Kistin, A.M., M.D., *Associate in Medicine*  
Benjamin Calloway Jones, Jr., M.D., *Associate in Medicine*  
Richard Bernard Castell, A.B., M.D., *Associate in Medicine*  
Myer Harold Stolar, B.S., M.D., *Associate in Medicine*  
Mark Hummer Lepper, M.D., *Associate in Medicine*  
Kenneth McLane Smith, A.B., M.D., *Associate in Medicine*  
James Edward McCormack, A.B., M.D., *Associate in Medicine*  
Sam Thompson Gibson, B.S., M.D., *Associate in Medicine*  
Walter Lewis Nalls, B.S., M.D., *Associate in Medicine*  
Luther Henry Snyder, A.B., M.D., *Clinical Instructor in Medicine*  
Emil Herbert Bauersfeld, A.B., M.D., *Clinical Instructor in Medicine*  
John Bayne Marbury, M.D., *Clinical Instructor in Medicine*  
Louis Ross, M.D., *Clinical Instructor in Medicine*  
James Theodore Burns, M.D., *Clinical Instructor in Medicine*  
Frederic Dunbar Chapman, A.B., M.D., C.M., *Clinical Instructor in Medicine*  
Irvin Kerlan, B.S., M.D., C.P.H., *Clinical Instructor in Medicine*  
Virginia Patterson Beelar, A.B., M.D., *Clinical Instructor in Medicine*  
Alfred Brigulio, M.D., *Clinical Instructor in Medicine*  
Lester Sylvan Blumenthal, A.B., M.D., M.S. in Med., *Clinical Instructor in Medicine*  
Samuel Jacob Nathan Sugar, Phar.G., M.D., *Clinical Instructor in Medicine*  
Joseph Ney, B.S., M.D., *Clinical Instructor in Medicine*  
Henry Dunlop Ecker, B.S., M.D., *Clinical Instructor in Medicine*  
John Wilmer Latimer, Jr., M.D., *Clinical Instructor in Medicine*  
Charles Wilson Jones, A.B., M.D., *Clinical Instructor in Medicine*  
Halla Brown, M.D., *Clinical Instructor in Medicine*  
Frank Solomon Bacon, B.S., M.D., *Clinical Instructor in Medicine*



Joseph Beinstein, A.B., M.D., *Clinical Instructor in Medicine*  
William Frank, M.D., *Clinical Instructor in Medicine*  
Stanley William Kirstein, M.D., *Clinical Instructor in Medicine*  
James Walling Long, M.D., *Clinical Instructor in Medicine*  
Ralph Bretney Miller, M.D., *Clinical Instructor in Medicine*  
Raymond Schwartz, A.B., M.D., *Clinical Instructor in Medicine*  
Robert George Taylor, M.D., *Clinical Instructor in Medicine*  
Charles Waters Thompson, M.D., *Clinical Instructor in Medicine*  
Thomas Stone Sappington, A.B., M.D., *Clinical Instructor in Medicine*  
Maurice Franks, M.D., *Clinical Instructor in Medicine*  
Charles Edward Law, M.D., *Clinical Instructor in Medicine*  
Israel Kessler, M.S., M.D., *Clinical Instructor in Medicine*  
Jack Jacob Rheingold, A.B., M.D., *Clinical Instructor in Medicine*  
Francis James Murray, A.B., M.D., *Clinical Instructor in Medicine*  
Robert Lee Brickhouse, B.S., M.D., *Clinical Instructor in Medicine*  
Morris Hirsh Rosenberg, A.B., M.D., *Clinical Instructor in Medicine*  
Hyman Joseph Zimmerman, A.B., M.D., *Clinical Instructor in Medicine*  
Maurice Mensh, M.D., *Clinical Instructor in Medicine*  
Robert Norwood Coale, B.S., M.D., *Clinical Instructor in Medicine*  
Harry Clark Bates, B.S., M.D., *Clinical Instructor in Medicine*  
James Francis Ambury, B.S., M.D., *Clinical Instructor in Medicine*  
William Otis Bailey, Jr., M.D., *Clinical Instructor in Medicine*  
Edwin Pearson Parker III, B.S., M.D., *Clinical Instructor in Medicine*  
Thomas Joseph Pekin, M.D., *Clinical Instructor in Medicine*  
Andrew Joseph Brennan, M.D., *Clinical Instructor in Medicine*  
Eugene Solomon Gladsden, B.S., M.D., *Clinical Instructor in Medicine*  
Jeanne Cecile Bateman, A.B., M.D., *Clinical Instructor in Medicine*  
Richard Lee Whelton, M.D., *Clinical Instructor in Medicine*  
John William Du Chez, M.D., *Clinical Instructor in Medicine*  
Thomas Lees Hartman, A.M., M.D., *Clinical Instructor in Medicine*  
William Merchant, A.B., M.D., *Clinical Instructor in Medicine*  
Sidney Olansky, B.S., M.D., *Clinical Instructor in Medicine*  
Boris Rabkin, A.B., M.D., *Clinical Instructor in Medicine*  
Morton Harold Rose, M.D., *Clinical Instructor in Medicine*  
George Sharpe, A.B., M.D., *Clinical Instructor in Medicine*  
Irene Gorski Tamagna, M.D., *Clinical Instructor in Medicine*  
Warren Daniel Brill, B.S., M.D., *Clinical Instructor in Medicine*  
Frederick Warren Coe, B.S., M.D., *Clinical Instructor in Medicine*  
Joseph Michael Pisani, A.B., M.D., *Clinical Instructor in Medicine*  
Marvin Fuchs, B.S., M.D., *Clinical Instructor in Medicine*  
Frank Goodnow MacMurray, A.B., M.D., *Clinical Instructor in Medicine*  
William Jack Weaver, Jr., A.B., M.D., *Clinical Instructor in Medicine*  
James Irving Boyd, M.D., *Lecturer in Medicine*



Jack Kleh, A.B., M.D., *Research Fellow in Cardiology*  
 Abraham Wolffe Danish, A.B., M.D., *Fellow in Gastroenterology*  
 James Packard Mann, M.D., *Teaching Fellow in Pulmonary Diseases*  
 William Edward Nessell, A.B., M.D., *Fellow in Cardiology*  
 Maurice Arthur Sislen, A.B., M.D., *Fellow in Pulmonary Diseases*  
 John Grant Wilmer, A.B., M.D., *Research Fellow in Cardiology*  
 Harold Wade Spies, B.S., M.D., *Fellow in Medicine*

- 132 *History of Medicine* The Staff  
 One hour a week.
- 236 *Clinical Microscopy* The Staff  
 Conferences and studies in the clinical application of laboratory examinations of blood, body fluids, exudates, and excreta. Three hours a week.
- 241 *Physical Diagnosis I* The Staff  
 Theoretical considerations of the principles of physical diagnosis. One hour a week.
- 242 *Physical Diagnosis II* The Staff  
 Covers not only theoretical but practical application of principles of physical diagnosis as related to examination of patients. Six hours a week.
- 244 *Introduction to Medicine* The Staff  
 Lectures covering the principles of internal medicine preparatory to clinical studies and training in the inpatient and outpatient services. Four hours a week.
- 320 *Medical Jurisprudence* The Staff  
 Lectures on the legal and ethical rights of physicians, and on the legal problems with which the physician comes in contact. One hour a week for sixteen weeks.
- 325-26 *Clinical Clerkships* The Staff  
 Training with bed patients under individual instruction designed to develop ability in examination of patients and case taking as well as practice in clinical microscopy. Eight weeks.
- 327-28 *Clinical Pathological Conferences I* Brown, Choisser  
 Required in the third year. Correlation of clinical and post-mortem findings: detailed case description from the clinical point of view followed by demonstrations of post-mortem findings. One hour a week.
- 339-40 *Therapeutic Conferences I* Staff of Medicine and Pharmacology  
 Conferences designed to emphasize the application of pharmacological principles to the problems of clinical medicine. One hour a week.
- 349-50 *Medical Conferences* The Staff  
 Two hours a week.



- 421-22 *Outpatient Clinics* The Staff  
Individual case studies under personal supervision of the Staff. Daily clinics on current medical problems and seminars stressing physiological aspects of diseases. Individual examinations and instruction in medical specialties. University and Emergency hospitals. Eight weeks.
- 423-24 *Clinical Clerkship* The Staff  
Available at the University, Emergency, Mt. Alto, and Walter Reed hospitals. Eight weeks.
- 427-28 *Clinical Pathological Conferences II* Brown, Choisser  
Required in the fourth year. Continuation of 327-28. One hour a week, in rotation.
- 439-40 *Therapeutic Conferences II* Staff of Medicine and Pharmacology  
Continuation of 339-40. One hour a week.



## MILITARY SCIENCE AND TACTICS \*

Joseph Augustine Connor, Jr., M.D., Major, Medical Corps, United States Army, *Professor of Military Science and Tactics, Executive Officer*

### 129-30 *Elementary Course, Senior Division ROTC* Connor (First Year)

World situation, national defense, and ROTC (3); military obligations of citizenship (1); organization of the Army (10); organization of the Medical Department (5); courtesies and customs of the Service (2); military law (4); military training (2); medical military history (1); military administration (3); examination and discussion (1).

### 247-48 *Elementary Course, Senior Division ROTC* Connor (Second Year)

World situation, national defense, and ROTC (3); organization and employment of medical service of field army (5); duties of the surgeon (3); medical service, zone of communications (3); medical service, zone of interior (3); medical supply (3); introduction to map reading (4); health and national security (2); first aid, bandaging, and splinting (5); examination and discussion (1).

### 329-30 *Advanced Course, Senior Division ROTC ‡* Connor (First Year)

World situation, national defense, and ROTC (3); military preventive medicine (20); field medicine and surgery (6); army graduate professional education program (1); army career (1); examination and discussion (1).

### 429-30 *Advanced Course, Senior Division ROTC ‡* Connor (Second Year)

World situation, national defense, and ROTC (3); military preventive medicine (11); medical aspects of atomic warfare (2); medical aspects of chemical warfare (2); military psychiatry (5); personnel management (3); military medical research development (3); organized reserve corps (1); mobilization (1); examination and discussion (1).

\* Figures in parenthesis indicate the number of hours devoted to the subject.

‡ Students in the advanced course are selected from those who satisfactorily complete the elementary course, or have one year active federal service.



## NEUROLOGY AND NEUROLOGICAL SURGERY

Walter Freeman, Ph.D., M.D., *Professor of Neurology, Executive Officer*

James Winston Watts, B.S., M.D., *Professor of Neurological Surgery*

Hyman David Shapiro, M.D., *Associate Clinical Professor of Neurology*

Robert Henry Groh, B.S., M.D., *Assistant Clinical Professor of Neurology*

Paul Chodoff, A.B., M.D., *Associate in Neurology*

James Peter Murphy, B.S., M.D., *Associate in Neurological Surgery*

George Davis Weickhardt, M.D., *Clinical Instructor in Neurology*

Hugo Victor Rizzoli, A.B., M.D., *Clinical Instructor in Neurological Surgery*

Jonathan Marshall Williams, M.D., *Clinical Instructor in Neurological Surgery*

Oscar Legault, A.B., M.D., *Clinical Instructor in Neurology*

John William Kemble, A.B., M.D., *Clinical Instructor in Neurology*

Harold Bernard Lehrman, A.B., M.D., *Clinical Instructor in Neurology*

Marion Ballard Richmond, B.S., M.D., *Clinical Instructor in Neurology*

Laszlo Nandor Tauber, M.Ch., M.D., *Teaching Fellow in Neurological Surgery*

Luis Guildbaldo Murillo, B.S., M.D., *Fellow in Neurology*

DeLora Fowler Mott, M.D., *Fellow in Neurology and Neurological Surgery*

Jesus Sanchez-Perez, M.D., *Fellow in Neurology and Neurological Surgery*

249-50 *Neurology (elective)* Freeman  
Methods of study of the nervous system. Gross and microscopic preparations, embryology, comparative anatomy, stimulation and extirpation, human pathology, etc. Laboratory demonstrations. One hour a week.

331 *Neurology* Shapiro and Staff  
Systematic lectures with lantern slides, illustrating the chief neurologic syndromes and their anatomic bases. One hour a week.

333-34 *Neurology and Neurological Surgery, Clinical Clerkship* Freeman and Staff  
Instruction in history, physical examination, ordinary clinical procedures. Attendance at neurological operations. Gallinger Hospital. Four students in rotation, two weeks.

335-36 *Neurological Conference* Freeman and Staff  
Clinical conference one afternoon a week followed by clinicopathologic study of specimens from current necropsies. Gallinger Hospital. Two and one-half hours a week.



431-32 *Neurology Clinic*

Shapiro and Staff

Neurological outpatient clinic. Consultation of staff on ambulatory cases, demonstration of diagnostic procedures, disposition of neuropsychiatric cases. Discussion of neuropathologic material. University Hospital. Two hours a week.

433-34 *Neurosurgery*

Watts and Staff

Clinical demonstrations in surgery of the brain, spinal cord, and peripheral nerves. Emphasis is laid upon fundamentals and upon the possibilities of surgery in the relief of symptoms. University and Gallinger hospitals. Section of four students, two hours a week.



## OBSTETRICS AND GYNECOLOGY

- John Parks, M.S., M.D., *Professor of Obstetrics and Gynecology, Executive Officer*  
Radford Brown, M.D., *Clinical Professor of Obstetrics and Gynecology*  
Jacob Kotz, M.D., *Clinical Professor of Obstetrics and Gynecology*  
Henry Lauran Darner, A.B., M.D., *Clinical Professor of Obstetrics and Gynecology*  
Herbert Percy Ramsey, A.B., M.D., *Clinical Professor of Obstetrics and Gynecology*  
Robert Henry Barter, M.D., *Adjunct Clinical Professor of Obstetrics and Gynecology*  
George Nordlinger, A.B., M.D., *Associate in Obstetrics and Gynecology*  
Laurence Lee Cockerille, M.D., *Associate in Obstetrics and Gynecology*  
Clayton Howard Hixson, M.D., *Associate in Obstetrics and Gynecology*  
Henry John Russell McNitt, B.S. in Med., M.D., *Associate in Obstetrics and Gynecology*  
Samuel Mayer Dodek, A.M., M.D., *Associate in Obstetrics and Gynecology*  
Russel Jon Jansen, M.D., *Associate in Obstetrics and Gynecology*  
Howard Pope Parker, A.B., M.D., *Associate in Obstetrics and Gynecology*  
Roger O'Donnell, Jr., A.B., M.D., *Associate in Obstetrics and Gynecology*  
James Albert Dusbabek, M.D., *Associate in Obstetrics and Gynecology*  
Barton Winters Richwine, M.D., *Associate in Obstetrics and Gynecology*  
Clarence Kendall Fraser, Ph.B., M.D., *Associate in Obstetrics and Gynecology*  
Charles Henry Nash, Jr., M.D., *Instructor in Obstetrics and Gynecology*  
Katherine Elizabeth Parker, A.M., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
William Dandridge Terrell, Jr., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
Samuel Hazen Shea, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
Julius Robert Epstein, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
Morton Selwyn Kaufman, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
Floyd Sterling Rogers, M.D., *Clinical Instructor in Obstetrics and Gynecology*



- Neel Jack Price, B.S., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Rufus Martin Roll, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Caroline Jackson, A.M., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Jeremiah Keith Cromer, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Jed Williams Pearson, Jr., A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Thomas Miles Leonard, Ph.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 William Thurston Lady, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Albert Seymour Bright, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Shirley Sue Martin, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Roland Essig Bieren, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Alexander Le Sueur Russell, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Donald Walters, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Thomas Ashton Wilson, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Ekrem Suleyman Turan, M.D., *Research Associate in Obstetrics and Gynecology*

54 *Normal Obstetrics*

Fraser, Dodek

Lectures and demonstrations on the physiology and management of normal pregnancy. One hour a week.

337-38 *Abnormal Obstetrics*

Nordlinger, Parks

Lectures and demonstrations on the complications of pregnancy. One hour a week.

343 *Gynecology*

Brown

Lectures and demonstrations on the principles of gynecology. One hour a week.

344 *Marriage and Marital Problems*

Ramsey, Nordlinger

A course of instruction in marriage counseling and planned parenthood. One hour a week.

348 *Female Endocrinology and Operative Gynecology*

Kotz, Darner

Lectures on the physiology and pathology of the female endocrine system and on principles of gynecological surgery. One hour a week.



401-2 *Manikin Demonstrations*

Lady

The mechanism of labor and various types of operative delivery demonstrated to sections of the class in weekly sessions.

441-42 *Clinical Obstetrics*

Parks and Staff

Senior students participate in prenatal and postnatal clinic care; make postpartum home calls; observe the course of labor and deliver patients under supervision; attend biweekly departmental conferences and daily ward rounds in the University and Gallinger hospitals.

443-44 *Clinical Gynecology*

Parks and Staff

Senior students observe and participate in the gynecological work of clinics, operating rooms, and gynecological services of the University and Gallinger hospitals.



## OPHTHALMOLOGY

- Ernest Alfred Watson Sheppard, M.D., C.M., *Professor of Ophthalmology, Executive Officer*  
 Ronald Atmore Cox, A.B., M.D., *Assistant Clinical Professor of Ophthalmology*  
 Frank Duncan Costenbader, B.S., M.D., *Assistant Clinical Professor of Ophthalmology*  
 Richard Wallace Wilkinson, M.S., M.D., *Associate in Ophthalmology*  
 Sterling Bockoven, M.D., *Associate in Ophthalmology*  
 Walter Joseph Romejko, M.D., *Clinical Instructor in Ophthalmology*  
 Carmon Robert Naples, B.S., M.D., *Clinical Instructor in Ophthalmology*  
 Micollius Noel Stow, M.D., D.M.S., *Clinical Instructor in Ophthalmology*  
 James Spencer Dryden, M.D., *Clinical Instructor in Ophthalmology*  
 William Paxson Chalfant, Jr., M.D., *Clinical Instructor in Ophthalmology*  
 William Joseph Graham Davis, A.B., M.D., *Clinical Instructor in Ophthalmology*  
 William Henry Hanna, A.B., M.D., *Clinical Instructor in Ophthalmology*

### 351-52 *Ophthalmology*

The Staff

A lecture course presenting the principles of ophthalmology, with special reference to topics of importance to the general practitioner. One hour a week for sixteen weeks.

### 447 *Clinic*

The Staff

During medical outpatient service, each student is given individual instruction in the ophthalmological aspects of systemic disease.



## OTO-RHINO-LARYNGOLOGY

Daniel Bruce Moffett, A.B., M.D., *Professor of Oto-rhino-laryngology, Executive Officer*

William Herndon Jenkins, M.D., *Clinical Professor of Oto-rhino-laryngology*

Leroy Lee Sawyer, A.B., M.D., *Assistant Clinical Professor of Oto-rhino-laryngology*

David Davis, A.B., M.D., *Associate in Oto-rhino-laryngology*

Aubrey David Fischer, M.D., *Associate in Oto-rhino-laryngology*

Joel Norton Novick, M.S., M.D., *Clinical Instructor in Oto-rhino-laryngology*

Catharine Birch, A.B., M.D., *Clinical Instructor in Oto-rhino-laryngology*

Homer King Vann, A.B., M.D., *Clinical Instructor in Oto-rhino-laryngology*

James Jerry McFarland, Jr., B.S., M.D., *Clinical Instructor in Oto-rhino-laryngology*

Thomas Frasier Williams, M.D., *Clinical Instructor in Oto-rhino-laryngology*

451 *Oto-rhino-laryngology* Moffett, Jenkins  
Lectures and demonstrations on anatomy, physiology, and diseases of the ear, nose, and throat. One hour a week.

454 *Bronchoscopy* Davis  
A series of lectures on the fundamental principles and the use of instruments, including both the bronchoscope and esophagoscope. One hour a week for two weeks.

456 *Clinic* The Staff  
Practical clinical instruction in the diagnosis and treatment of diseases of the ear, nose, and throat. University Hospital. One and one-half hours twice a week.



## PATHOLOGY

Roger Morrison Choisser, B.S., M.D., *Professor of Pathology, Executive Officer*

Thomas Martin Peery, A.B., M.D., *Associate Professor of Pathology*

Carl Hunt Wells, B.S., M.D., *Associate Professor of Pathology*

Robert Pelley Hill, B.S., M.D., *Assistant Professor of Pathology*

Clem Casper Crossland, Jr., M.D., *Teaching Fellow in Pathology*

James Allen Sargent, M.D., *Teaching Fellow in Pathology*

James Adam Sowers, A.B., M.D., *Teaching Fellow in Pathology*

Leila Hulbert Wells, A.B., M.D., *Teaching Fellow in Pathology*

### SEMINAR LECTURERS

Elson Bowman Helwig, B.S., M.D., *Professorial Lecturer in Pathology*

Hans Frank Smetana, M.D., *Professorial Lecturer in Pathology*

Henry Rappaport, M.D., *Professorial Lecturer in Pathology*

James Earle Ash, Jr., M.D., *Professorial Lecturer in Pathology*

Elizabeth Maplesden Ramsey, A.B., M.D., *Professorial Lecturer in Pathology*

### 259-60 *Pathology*

Choisser and Staff

Malformations, inflammations, degenerations, and neoplasms; special pathology of the organs and specific diseases. The laboratory work consists of the gross and microscopic study of diseased tissues. Necropsies are held regularly at the University and Gallinger hospitals.

### 307 *Necropsy (elective)*

The Staff

Students assist in the performance of necropsies. Fresh gross specimens and microscopic sections from each case are presented at weekly conferences. Current literature relating to cases is reviewed and presented by the students.

### 327-28 *Clinical Pathological Conference*

Choisser, Brown

Required in the third and fourth years. Case histories are presented and discussed by members of the staff and student body; necropsy and clinical findings are compared, and gross and microscopic specimens examined. One hour a week.

### 460 *Research*

Choisser

Hours and credits to be arranged.



## PEDIATRICS

Preston Alexander McLendon, B.S., M.D., *Professor of Pediatrics, Executive Officer*

Margaret Mary Nicholson, A.B., M.D., *Clinical Professor of Pediatrics*

Edward Lewis, M.D., *Clinical Professor of Pediatrics*

William Staton Anderson, A.B., M.D., *Clinical Professor of Pediatrics*

Lewis Kaigler Sweet, A.B., M.D., *Adjunct Clinical Professor of Pediatrics*

Mabel Harlakenden Grosvenor, A.B., M.D., *Assistant Clinical Professor of Pediatrics*

John Augustine Washington, A.B., B.S., M.D., *Assistant Clinical Professor of Pediatrics*

Aaron Nimetz, A.B., M.D., *Assistant Clinical Professor of Pediatrics*

Dorothy Steinle Jaeger-Lee, M.D., *Assistant Clinical Professor of Pediatrics*

George Maksim, M.D., M.S. in Ped., *Assistant Clinical Professor of Pediatrics*

Reginald Spencer Lourie, M.D., *Associate in Pediatrics*

Henry Marcus Work, A.B., M.D., *Associate in Pediatrics*

Frederic Gerard Burke, B.S., M.D., *Associate in Pediatrics*

William Allen Howard, A.B., M.D., *Associate in Pediatrics*

John Howell Peacock, B.S., M.D., *Clinical Instructor in Pediatrics*

Herbert Harold Diamond, M.D., *Clinical Instructor in Pediatrics*

Reginald Henry Mitchell, M.D., *Clinical Instructor in Pediatrics*

Maynard Irving Cohen, A.B., M.D., *Clinical Instructor in Pediatrics*

Mary Katherine Laurence Sartwell, A.B., M.D., *Clinical Instructor in Pediatrics*

Sydney Ross, M.D., *Clinical Instructor in Pediatrics*

Charles Frederick Stiegler, A.B., M.D., *Clinical Instructor in Pediatrics*

Hugh Gambel Clark, A.B., M.D., *Clinical Instructor in Pediatrics*

Herbert Dudley Glick, B.M., M.D., *Clinical Instructor in Pediatrics*

Mary Jane Howell, A.B., M.D., *Clinical Instructor in Pediatrics*

Adrian Recinos, Jr., B.S., M.D., *Clinical Instructor in Pediatrics*

Samuel Bessman, M.D., *Fellow in Pediatrics*

Joseph Michael Lo Presti, B.S., M.D., *Teaching Fellow in Pediatrics*

### 256 *Pediatrics*

McLendon and Staff

Lectures on physiology of the newborn, development, infant nutrition, diseases of the newborn, common anomalies and system illnesses of childhood. Medical School. Two hours a week.

### 357-58 *Clinical Clerkship—General Pediatrics*

Nicholson and Staff

General pediatric diseases and the newborn. Emphasis on history



taking and physical examination. Daily ward rounds. Gallinger Municipal Hospital. Five students in rotation, two weeks.

359-60 *Clinical Clerkship—Contagious Diseases* Grosvenor and Staff

Preventive and quarantine measures. Daily ward rounds and conferences. Gallinger Municipal Hospital. Five students in rotation, two weeks.

361-62 *Clinical Conference* McLendon and Staff

Required in third year. Presentation and discussion of current patient problems. Gallinger Municipal Hospital. One hour a week.

365 *Clinical Conference I* McLendon and Staff

Required in the third year. Staff and student discussion of diagnosis and management. Medical School. One hour a week.

457-58 *Clinical Clerkship* McLendon and Staff

Full time including assignment to night and holiday admissions. Case studies on wards under direct Resident supervision. Ward rounds with Staff and Residents. Childrens Hospital. Twelve students, six weeks.

459-60 *Outpatient Clinics* Washington and Staff

Work in Medical and Specialty clinics including surgery, allergy, X-ray, child welfare, cardiology, dermatology, neurology, and child guidance. Childrens Hospital.

461-62 *Clinico-pathological Conference* McLendon and Staff

Clinical and pathological discussion of recent patient history and laboratory data. Childrens Hospital.

463-64 *Group Conferences* McLendon and Staff

Discussion of clinical problems of diagnosis and treatment of current patients. Childrens Hospital. Twice a week.

465 *Clinical Conference II* McLendon and Staff

Required in the fourth year. Case presentation by fourth-year students. Staff and student discussion of diagnosis and management. Medical School. One hour a week.



## PHARMACOLOGY

Paul Kenneth Smith, Ph.D., *Professor of Pharmacology, Executive Officer*

Erwin Ellis Nelson, M.D., Ph.D., *Adjunct Clinical Professor of Pharmacology*

Hugh Hackland Darby, Ph.D., *Research Professor of Biophysics*

Aldo Peter Truant, Ph.D., *Assistant Professor of Pharmacology*

Murray Finkelstein, M.S., *Assistant Professor of Pharmacology*

Harold George Mandel, Ph.D., *Research Associate in Pharmacology*

261 *Pharmacology* The Staff  
Lectures and conferences concerning the interaction of drugs and biological systems as a basis for the rational therapy of disease. Five hours a week.

263 *Pharmacology Laboratory* The Staff  
Laboratory instruction and demonstrations designed to complement the above course. Five hours a week.

265 *Chemotherapy* The Staff  
Five lectures a week for three weeks. Designed for graduate students.

361-62 *Pharmacological Research* The Staff  
Primarily for those properly qualified graduate and medical students seeking careers in pharmacology. Hours and credits to be arranged.

363-64 *Pharmacology Seminar (1-1)* The Staff  
Recent advances in pharmacology. For those interested in pharmacological research. Two hours a week.

369-70 *Clinical Pharmacology* The Staff  
Discussions of the pharmacological basis of therapeutics. One hour a week.

479-80 *Special Methods in Research* The Staff  
A course to familiarize the student with advanced chemical and physiological methods employed in pharmacological investigations. Hours and credits to be arranged.



## PHYSICAL MEDICINE

Charles Samuel Wise, B.S., M.D., *Associate Professor of Physical Medicine, Executive Officer*

Dorothy Emily Voss, Ed.B., R.P.T.T., *Associate in Physical Medicine*

Alvin Knudson, B.S., M.D., *Associate in Physical Medicine*

Jasper Wayne McFarland, B.S., M.D., *Clinical Instructor in Physical Medicine*

### 150 *Elements of Physical Medicine*

The Staff

In arrangement with the Anatomy Department, lectures and demonstrations of the various tests and measurements are employed in the evaluation of physical disability. Emphasis is placed on normal and abnormal peripheral nerve testing (electrodiagnosis), muscle testing, joint range, and other physical disability measurements.

### 351-52 *Advanced Physical Medicine*

The Staff

Lectures and demonstrations concerning the various techniques, clinical applications of physical medicine, and rehabilitation to be integrated with the teaching of the associated medical and surgical specialties.

### 467-68 *Clinical Studies*

The Staff

Clinical teaching and demonstration at the University Hospital.

### 485 *Research*

The Staff

Hours to be arranged.



## PHYSIOLOGY

Errett Cyril Albritton, A.B., M.D., *Fry Professor of Physiology, Executive Officer*

Chester Elwood Leese, Ph.D., *Professor of Physiology*

Alvin Edward Parrish, M.D., *Professorial Lecturer in Physiology*

Hyman Erwin Steinman, M.D., *Professorial Lecturer in Physiology*

\_\_\_\_\_, *Assistant Professor of Physiology*

James Thomas Hicks, M.S., *Associate in Physiology*

Joseph William Still, M.D., M.P.H., *Instructor in Physiology*

115 *Physiology* (3) Leese and Staff  
Lectures for academic students covering the fundamentals of physiology in its various subdivisions. Prerequisites: one year of general science or one term of a biological science. Section A: Tues., Thurs., and Sat., 9:10 A.M.; section B: Tues. and Thurs., 5:10 to 6:25 P.M.

117 *Experimental Physiology* (1) Hicks and Staff  
Laboratory exercises in the fundamentals of physiology, for academic students. Prerequisite or concurrent registration: Physiology 115 or the equivalent. Material fee, \$12. Sat., 10:10 A.M. to 1:00 P.M.

120 *Physiology of Endocrine Activity* (2) Albritton  
The circulatory, metabolic, reproductive, growth, and other adaptations, immediate and long term, accompanying and affecting endocrine activity. May be taken for two credits with additional work. Prerequisite: Physiology 115 or the equivalent. Tues. and Thurs., 5:10 P.M.

130 *The Psycho-physiology of Personality* (2) Leese  
Lectures on the genesis and expression of personality, with emphasis on the physiological approach. Prerequisite: Physiology 115 or the equivalent and general psychology. Tues. and Thurs., 6:10 P.M.

150 *Advanced Physiology* The Staff  
One hundred physiological lectures and one hundred thirty laboratory hours devoted to the major divisions of the subject. For Medical Students.

159-60 *Experimental Method* (1-1) Albritton  
Design of controlled experiments in medical or biological investigation; errors in design; criticism and judgment of evidence, and tests of the statistical significance of experimental results. Sat., 12:00 to 1:00 P.M.

169-70 *Problems in Physiology* Albritton and Staff  
Hours and credits to be arranged.

179-80 *Physiology Seminar* (1-1) The Staff  
Weekly throughout the year.



- 231 *Advanced Physiology of Circulation and Respiration* (2) Albritton and Staff  
Lectures on blood, heart, circulation, respiration, and acid-base balance. Two hours a week, to be arranged.
- 234 *Advanced Physiology of Nutrition, Metabolism, and Excretion* (2) Steinman and Staff  
Lectures on nutrition, digestion, metabolism, excretion, temperature regulation, and water balance. Two hours a week, to be arranged.
- 236 *Advanced Physiology of the Endocrine Glands and Reproduction* (1) Albritton and Staff  
Lectures on ductless glands, hormones, humoral agents, and reproduction. One hour a week, to be arranged.
- 238 *Advanced Physiology of the Neuro-Muscular System* (2) Leese and Staff  
Lectures on sensory reception, central nervous processes, somatic and visceral motor activity, and the behavior of smooth and striped muscle. Two hours a week, to be arranged.
- 240 *Advanced Experimental Physiology* (3) The Staff  
Laboratory work only. Correlated with the lectures in courses 231-238. Material fee, \$25. Nine hours a week, to be arranged.
- 295-96 *Research* Albritton, Leese, and Staff  
Hours and credits to be arranged.
- 299-300 *Thesis* (3-3) Albritton, Leese



## PSYCHIATRY

Winfred Overholser, A.B., M.D., Sc.D., *Professor of Psychiatry, Executive Officer*

Roscoe Willis Hall, Ph.B., M.D., *Clinical Professor of Psychiatry*

Solomon Katzenelbogen, M.D., *Clinical Professor of Psychiatry*

Addison McGuire Duval, M.D., *Clinical Professor of Psychiatry*

Sidney Berman, B.S., M.D., *Assistant Clinical Professor of Psychiatry*

Morris Kleinerman, Ch.D., M.B., *Assistant Clinical Professor of Psychiatry*

Henry Prather Laughlin, B.S., M.D., *Assistant Clinical Professor of Psychiatry*

Marshall deGraffenried Ruffin, B.S., M.D., *Assistant Clinical Professor of Psychiatry*

Leon Yochelson, A.B., M.D., *Assistant Clinical Professor of Psychiatry*

Harriet Elizabeth Twombly, A.B., M.D., *Associate in Psychiatry*

Samuel Alexander Silk, Ph.D., M.D., *Associate in Psychiatry*

Isabelle Kendig, Ph.D., *Associate in Psychiatry*

Norman Taub, B.S., M.D., *Associate in Psychiatry*

William Green Cushard, M.D., *Clinical Instructor in Psychiatry*

Helen Pallister, Ph.D., *Clinical Psychiatrist*

### 165 *Dynamics of Personality Development* Berman

An orientation course in the anatomical, physiological, and psychological growth and development of personality. Consideration of characteristics of structure, function, and development of the psyche leading to normal behavior as a basis for the study of the pathological. Evaluation of interpersonal relationships. One hour a week.

### 178 *Psychopathology* Hall

Manifestations and understanding of various mental mechanisms and abnormal reaction-types, preceded by history of development of psychopathology and illustrated with case material. One hour a week.

### 266 *Psychiatry* Overholser

History, etiology, symptoms, course, and treatment of the major psychoses with emphasis on the dynamics involving the person as a whole. One hour a week.

### 268 *Demonstration Clinics* Silk, Twombly

Presentation of clinical cases of major mental illnesses and primary behavior disturbances, correlating with Psychiatry 266. Each student examines patients under supervision. Three hours a week. St. Elizabeths Hospital.

### 271 *Psychosomatic Aspects of General Medicine* Katzenelbogen

Somatic disorders of psychogenic origin. The role of personality reactions in functional and organic disorders. One hour a week.



- 324 *Psychoneurosis* Laughlin  
Etiology, psychopathology, clinical aspects, and treatment of various types of psychoneuroses. One hour a week for twelve weeks. Medical Conference Room, Gallinger Hospital.
- 326 *Psychological Techniques in Psychiatric Practice* Kendig  
Discussion of psychological concepts and tools available for determination of intellectual level, personality structure, functional impairment, and organic deterioration. One hour a week for four weeks. Medical Conference Room, Gallinger Hospital.
- 331-32 *Clinical Clerkship* Cushard, Taub  
Under supervision, each student conducts mental and physical examinations of patients, works up and presents his cases for discussion and conclusion. Two-week assignments by section. Gallinger Hospital.
- 431-32 *Clinical Clerkship* Duval, Kleinerman, Laughlin, Ruffin, Yochelson, Pallister  
Supervised examination, diagnosis, and treatment of ambulatory borderline cases. Conferences for discussion of cases. Clinical application of psychiatric principles to general medical practice is stressed. Three hours twice a week, in rotation. University Hospital Out-patient Psychiatric Clinic.



## RADIOLOGY

William Stanbro, M.D., *Associate Professor of Radiology, Executive Officer*

Solomon Rodney Bersack, M.D., *Associate in Radiology*

Keene Manning Wallace, M.D., *Associate in Radiology*

213 *Basic Radiology* The Staff  
Orientation lectures in X-ray physics.

341-42 *Radiological Diagnosis* The Staff  
Lectures in conjunction with the course in Physical Diagnosis.

358 *Advanced Radiological Diagnosis* The Staff  
Lectures and discussions.

449 *Clinical Studies* The Staff  
Students assigned in rotation on a full-time basis for a specific period to the X-ray Department.

478 *Research* The Staff  
Hours to be arranged.



## SURGERY

- Brian Blades, A.B., M.D., *Professor of Surgery, Executive Officer*  
 Daniel LeRay Borden, A.M., M.D., *Clinical Professor of Surgery*  
 Paul Stirling Putzki, M.D., *Clinical Professor of Surgery*  
 Arch Lockhart Riddick, B.S., M.D., *Clinical Professor of Surgery*  
 William Berry Marbury, M.D., *Clinical Professor of Surgery*  
 Custis Lee Hall, M.D., *Clinical Professor of Surgery*  
 John Hugh Lyons, M.S., M.D., *Clinical Professor of Surgery*  
 Paul Budd Magnuson, M.D., *Adjunct Clinical Professor of Surgery*  
 John Gordon Lee, A.B., M.D., C.M., Med. Sc.D., *Adjunct Clinical Professor of Surgery*  
 Sam Foster Seeley, B.S., M.B., M.D., *Adjunct Clinical Professor of Surgery*  
 Wallace Harry Graham, B.S., M.D., *Professorial Lecturer in Surgery*  
 Herbert Hermann Schoenfeld, M.D., *Associate Clinical Professor of Surgery*  
 William Warren Sager, M.S., M.D., *Associate Clinical Professor of Surgery*  
 Alec Horwitz, M.S., M.D., *Associate Clinical Professor of Surgery*  
 Benjamin Franklin Dean, Jr., M.S., M.D., *Assistant Clinical Professor of Surgery*  
 William Stanley McCune, A.B., M.D., *Assistant Clinical Professor of Surgery*  
 Vincent Michael Iovine, B.S., M.D., *Assistant Clinical Professor of Surgery*  
 Carl Berg, M.D., *Assistant Clinical Professor of Orthopedic Surgery*  
 Calvin Trexler Klopp, A.B., M.D., *Assistant Clinical Professor of Surgery*  
 Julius Salem Neviaser, A.B., M.D., *Assistant Clinical Professor of Orthopedic Surgery*  
 Jerome Blaine Harrell, M.D., *Assistant Clinical Professor of Surgery*  
 Leonard Theodore Peterson, A.B., B.S., M.D., *Assistant Clinical Professor of Orthopedic Surgery*  
 Richard Knight Thompson, D.D.S., *Associate in Dental Surgery*  
 William Ross Morris, M.D., *Associate in Surgery*  
 Harold Walter Krogh, D.D.S., *Associate in Dental Surgery*  
 Jacob Joseph Weinstein, B.S., Phar.G., M.D., *Associate in Surgery*  
 William Carey Meloy, M.D., M.S. in Med., *Associate in Surgery*  
 Edward Alexander Cafritz, M.D., *Associate in Surgery*  
 Edward James Beattie, Jr., M.D., *Associate in Surgery*  
 Walter Henry Gerwig, Jr., A.B., M.D., *Associate in Surgery*  
 Hazen Eugene Cole, B.S., M.D., *Clinical Instructor in Surgery*



- Crenshaw Douglas Briggs, B.S., M.D., *Clinical Instructor in Surgery*  
 William Wiley Chase, A.B., M.D., *Clinical Instructor in Surgery*  
 Arthur James Mourot, B.S., M.D., *Clinical Instructor in Surgery*  
 Joseph Francis Conlon, D.D.S., *Clinical Instructor in Dental Surgery*  
 Otto Anderson Engh, A.B., M.D., *Clinical Instructor in Surgery*  
 Duane Case Richtmeyer, A.B., M.D., *Clinical Instructor in Surgery*  
 Richard Lee Jackson, M.D., *Clinical Instructor in Surgery*  
 Leon Gerber, M.D., *Clinical Instructor in Surgery*  
 Thomas Bradley, A.B., M.D., *Clinical Instructor in Surgery*  
 Lloyd Byron Burk, Jr., M.D., *Clinical Instructor in Surgery*  
 Ernest Alva Gould, M.D., *Clinical Instructor in Surgery*  
 Austin Bertram Rohrbach, Jr., M.D., *Clinical Instructor in Orthopedic Surgery*  
 T. Wiley Hodges, A.B., M.D., *Clinical Instructor in Surgery*  
 George Alfred Higgins, B.S., M.D., *Clinical Instructor in Surgery*  
 Marvin Hayne Kendrick, A.B., M.D., *Clinical Instructor in Surgery*  
 Brooks Gideon Brown, B.S., M.D., *Clinical Instructor in Surgery*  
 William Bert Ford, B.S., M.D., *Clinical Instructor in Surgery*  
 Gordon Sparks Letterman, A.B., B.S., M.D., *Clinical Instructor in Surgery*  
 Lois Irene Platt, A.B., M.D., *Clinical Instructor in Surgery (Cancer Cytology)*  
 Theodore Crandall Alford, A.B., M.D., *Fellow in Surgery*  
 Guy Neill Berry, B.S., M.D., *Fellow in Surgery*  
 William Shibley Elias, A.B., M.D., *Fellow in Surgery*

280 *Introduction to Surgery* The Staff  
 One hour twice a week. Lectures and recitations covering the field of general surgery.

284 *Surgical Physiology* The Staff  
 A clinical and laboratory course with particular emphasis on applied physiology. Two hours a week.

373-74 *Clinical Clerkship I* The Staff  
 The student is assigned and required to work up thoroughly the cases for diagnosis and treatment. Gallinger Hospital.

375-76 *Ward Walks* The Staff  
 Group ward rounds are made with the visiting physicians and their respective staffs in the course of their usual rounds. Gallinger Hospital.

377-78 *Orthopedics I* The Staff  
 Weekly orthopedic lecture, Gallinger Hospital; weekly three-hour orthopedic clinic, Surgery Outpatient Department, University Hospital.

379-80 *Surgical Staff Conference I* The Staff  
 Tuesday at Gallinger Hospital; Wednesday at the University Hospital.



- 383-84 *Surgical Clinic I* Blades  
Demonstration of various surgical diseases to the entire third- and fourth-year classes. One hour a week.
- 385 *Surgical Anatomy* Horwitz  
Two one-hour lectures a week. University Hospital.
- 391-92 *Surgical Pathology I* Hill  
One hour conference each week.
- 473-74 *Clinical Clerkships II* The Staff  
Available at the University, Walter Reed, Emergency, and Mt. Alto hospitals.
- 477-78 *Orthopedics II* The Staff  
Weekly orthopedic lecture, Gallinger Hospital; weekly three-hour orthopedic clinic, Surgery Outpatient Department, University Hospital.
- 479-80 *Surgical Staff Conference II* The Staff  
Tuesday at Gallinger Hospital; Wednesday at the University Hospital.
- 483-84 *Surgical Clinic II* Blades  
Demonstration of various surgical diseases to the entire third- and fourth-year classes. One hour a week.
- 491-92 *Surgical Pathology II* Hill  
One hour conference each week.
- 493-94 *Surgical Diseases of the Chest* Blades and Staff  
(*Elective*)  
Patients with various diseases of the chest, including the lungs, mediastinum and esophagus are presented. The cases are followed from week to week and operative specimens and microscopic sections are demonstrated. Walter Reed Hospital. Two hours a week.



## UROLOGY

Frederick A. Reuter, M.D., *Professor of Urology, Executive Officer*  
 Thomas Carlton Thompson, B.S., M.D., *Clinical Professor of Urology*  
 Gilbert Ottenberg, A.M., M.D., *Associate in Urology*  
 William Dabney Jarman, B.S., M.D., *Clinical Instructor in Urology*  
 Edward Egner Ferguson, M.D., *Clinical Instructor in Urology*  
 Leon Richard Culbertson, B.S., M.D., *Clinical Instructor in Urology*  
 Gordon Rhodes MacDonald, M.D., *Clinical Instructor in Urology*  
 Herbert DeGrange Wolff, Jr., M.D., *Clinical Instructor in Urology*

395-96 *Clinics* The Staff  
 Clinical teaching and demonstrations on the care of urological cases with special emphasis on the pre- and post-operative management. Operative clinics and clinical teaching. Gallinger Hospital.

491-92 *Urology* Reuter and Staff  
 Lectures covering the entire field of urology including diagnosis, treatment, and morbid pathology. One hour a week.

495-96 *Clinics* Reuter and Staff  
 Clinical demonstrations and teaching in the Outpatient Department, with special attention given to diagnostic procedures. Emergency and University hospitals. One part of each section daily.



# DEGREES CONFERRED

## DOCTOR OF MEDICINE

JUNE 1, 1949

Atchison, Joseph Lave	Va.	Kiracofe, Arthur Hiram, Jr.	Md.
Baird, Glenn Dean	D.C.	A.B. 1943, Franklin and Marshall College	
B.S. 1944, University of Oregon		A.M. 1945, Columbia University	
Band, Philip Theodore	D.C.	Lahti, Carl Robert	Mich.
A.B. 1945, The George Washington University		Lane, John Goethe, Jr.	Fla.
Berkow, Morton Donald	D.C.	Lash, Robert Frederick	Ill.
B.S. 1946, Franklin and Marshall College		Law, Arthur Gregory	Va.
Bessman, Alice Neuman	N.J.	Lee, Gilbert Stanley	Oreg.
(With distinction)		A.B. 1941, Stanford University	
A.B. 1943, Smith College		Macleon, Marion Elizabeth	D.C.
Binder, Samuel Sholom	Pa.	B.S. 1944, The George Washington University	
A.B. 1945, Marietta College		Mahaney, Thomas Preston	Mich.
Boteler, Marcia	D.C.	Michael, Arnold Hugh	D.C.
A.B. 1945, The George Washington University		(With distinction)	
Boyd, Thompson Harmes	Ill.	Michols, Raymond Martin	Wis.
B.S. 1946, University of Oklahoma		B.S. 1945, University of Notre Dame	
Burnes, James Patrick, Jr.	D.C.	Miller, Ray Lambert	Va.
Chapman, James Eliot	D.C.	B.S. 1936, Northwest Missouri State Teachers College	
Cluff, Leighton Eggertsen	Utah	Mossman, Paul Burrell	Calif.
(With distinction)		A.B. 1945, University of California	
Cohen, June Rae	D.C.	O'Leary-Matthews, Mary Jean	Md.
(With distinction)		(With distinction)	
B.S. 1945, The George Washington University		A.B. 1946, The George Washington University	
Cooper, William Hurlbert	Ohio	Pitner, Robert James	Miss
A.B. 1946, Western Reserve University		B.S. 1949, Mississippi State College	
Cooperman, Bernard Robert	D.C.	Pollack, Jerome Lee	D.C.
A.B. 1946, The George Washington University		B.S. 1945, Franklin and Marshall College	
Crisp, William Earl, Jr.	Ohio	Porter, Melvin A.	Kans.
Curtis, James Leroy	Wis.	Presto, Ernest Carl	N.Y.
De Lashmutt, Robert Eugene	Ohio	(With distinction)	
Ditzler, Marshall Ernest	Pa.	Robertson, John A.	Calif.
B.S. 1935, Lebanon Valley College		Shaheen, Michael Edmund	Miss.
Dixon, William Martin	Ind.	B.S. 1938, Boston University	
Droulard, Kenneth Earl	Mich.	Siggers, Richard Lawrence	D.C.
Dunbar, Anne Cameron	Conn.	A.B. 1945, Columbia University	
A.B. 1942, The George Washington University		Smith, James Anthony	N.Y.
A.M. 1944, Colorado College		Solomon, Robert Joseph	Mich.
English, Harold Meduin		Stout, Henry Wallace	D.C.
B.S. 1949, Washington College	Md.	Tidler, Harold Stanley	Md.
Essman, Leonard Joseph		Tomlinson, William Barrington	N.J.
Foster, Robert Russell	N.Y.	(With distinction)	
Goddard, James Lee	Ohio	Tway, Lawrence Edward	Calif.
Greenlee, Robert Leonard	Ohio	Van Atta, Glen Benjamin, Sr.	Ohio
Hardy, William McClure	Ind.	Van Gelderen, Bertha Elizabeth	D.C.
B.S. 1945, University of Oregon		A.B. 1947, The George Washington University	
Hashim, John Sarkise	Wash.	Wensel, Louise Oftedal	Md.
B.S. 1947, University of New Hampshire	Mass.	A.B. 1939, Wellesley College	
Haynes, Aubrey Franklin		Whitnack, John Doyle	Minn.
Hines, Robert Haynam	Tenn.	Whyte, Ann	D.C.
B.S. 1949, Mount Union College	Ohio	A.B. 1946, The George Washington University	
Howie, Donald Lynk		Williams, Gerald Albert	Iowa
Jenkins, Robert Lawrence, Jr.	Mass.	(With distinction)	
Kelser, George Archibald, Jr.	Pa.	B.S. 1945, South Dakota State College	
B.S. 1946, Harvard University	Md.	Wimberley, Mary Claire Baker	Ala.
Kilpatrick, John Taylor	Okla.	A.B. 1944, University of Alabama	
B.S. 1945, University of Oklahoma		Yetman, Thomas William	R.I.
		Zitani, Alfred Marius, Jr.	N.J.



# STUDENTS REGISTERED IN THE SCHOOL OF MEDICINE

1949-50

A			B		
Abraham, Abe Samuel (IV)	Calif.		Bacci, Carl Eugene (I)	Fla.	
B.S. 1938, Westminster College			Baratta, Michael Vincent (I)	N.Y.	
Araujo-Vidal, Juan (III)	Puerto Rico		A.B. 1949, Columbia University		
B.S. 1940, University of Puerto Rico			Barfoot, Julius Jackson (IV)	N.C.	
Ashworth, Charles Raymond (I)	Idaho		Barfoot, Verna Young (IV)	N.C.	
Avery, John Lawrence (IV)	D.C.		B.S. 1938, University of Cincinnati		
B.S. 1937, University of Maryland			M.S. 1945, University of Chicago		
M.S. 1939, The George Washington University			Barila, Timothy George (IV)	N.Mex.	
Aye, Ralph Claxton (IV)	Ill.		Barinott, Jeanne Frances (III)	D.C.	
M.S. 1941, Northwestern University			B.S. 1947, Pennsylvania State College		
C			Barkin, Gilbert Donald (I)	D.C.	
Breeding, Robert Burton (III)	Ky.		B.S. 1949, The George Washington University		
A.B. 1944, Transylvania College			Barnett, Helen McConnell (IV)	D.C.	
B.S. 1944, University of Kentucky			A.B. 1947, The George Washington University		
Brennan, Robert James (II)	Va.		Barnett, Robert Alexander (II)	D.C.	
A.B. 1949, The George Washington University			A.B. 1949, The George Washington University		
Brewer, Robert George (II)	Md.		Barr, Joseph Frederick (III)	N.J.	
A.B. 1948, Hamilton College			Barrison, William John (II)	Pa.	
Bristow, John Wesley (IV)	Calif.		B.S. 1946, Pennsylvania State Teachers College, East Stroudsburg		
Broadstreet, Henry Thomas, Jr. (IV)	Fla.		Beatty, Harry Bartton (III)	Va.	
B.S. 1945, University of Florida			A.B. 1948, The George Washington University		
Brooks, Harrison Morton, Jr. (IV)	N.Y.		Bellomy, Bruce Ben (II)	Va.	
B.S. 1940, Wheaton College, Ill.			Bergstrom, Roger Heaner (II)	Md.	
Bruce, Clayton Roy (IV)	Md.		Bernstein, Miriam Hannah (I)	N.Y.	
B.S. 1946, University of Pittsburgh			A.B. 1949, Mount Holyoke College		
Bruce, James Crawford (III)	D.C.		Berry, Robert Hahn (III)	Ohio	
Busch, Inez Lorraine (I)	N.Y.		Blachly, Charles Howard (I)	Fla.	
B.S. 1949, University of Rochester			B.S. 1949, American University		
C			Blair, Thomas Calvin (III)	D.C.	
Cahan, Jules Isaac (I)	D.C.		B.S. 1947, University of Michigan		
B.S. 1949, The George Washington University			Blue, John Frederick (III)	D.C.	
Carnes, Raymond Eugene (IV)	Md.		B.S. 1942, North Carolina State College		
A.B. 1947, The George Washington University			Bowen, Thales, Jr. (II)	D.C.	
Carr, George Lafayette (II)	Ga.		A.B. 1949, The George Washington University		
Clinkston, Philip (II)	Mich.		Bowler, John Andrew, Jr. (III)	D.C.	
B.S. 1942, University of Michigan			A.B. 1949, The George Washington University		
M.S. 1948, The George Washington University			Boyer, Delos White (IV)	D.C.	
Cobb, Leonard Cowgill (I)	Wash.		Bradley, John Grover (III)	Nev.	
B.S. 1949, University of Washington			Brady, Neal Caldwell (III)	Calif.	
Coffey, Hubert Franklin (I)	Tenn.		B.S. 1947, Western Reserve University		
Cohen, George Joel (IV)	D.C.		Brawner, Edgar Newlon, Jr. (III)	D.C.	
Cohen, Melvin S. (I)	N.Y.				
A.B. 1938, Brooklyn College					
B.S. 1949, The George Washington University					
Cole, Fenwick Earl (II)	D.C.				
Cole, Ralph John (III)	Pa.				
A.B. 1948, The George Washington University					
Conner, Ray Bradford (I)	D.C.				
Connor, Audrey Marie (IV)	D.C.				
A.B. 1945, Trinity College					
Connor, Joseph Daniel (IV)	D.C.				
Conzelman, Gaylord Maurice III	Calif.				
B.S. 1949, Idaho State College					
Cooper, Charles David (III)	D.C.				
A.B. 1948, The George Washington University					
Corrado, Michael Anthony (II)	D.C.				
A.B. 1949, The George Washington University					
Corwin, Leonard Joel (II)	N.J.				
B.S. 1947, Rutgers University					
Costas, Raul, Jr. (I)	Puerto Rico				
B.S. 1949, Villanova College					
Coultrip, Raymond Laverne, Jr. (II)	D.C.				
Crowell, Jack (III)	D.C.				
B.S. 1947, The George Washington University					



D			
Dalton, Charles Edward (IV)	Va.	Fisher, James William (II)	S.C.
Davis, David Stanley (I)	Ohio	B.S. 1947, University of South Carolina	
Davis, Thomas McLellan, Jr. (II)	D.C.	Fisher, Alan Edmund (I)	Pa.
A.B. 1948, The George Washington University		B.S. 1949, Pennsylvania State College	
Deliman, Robert Michael (I)	Pa.	Foor, Milton A. (II)	D.C.
B.S. 1949, University of Pittsburgh		A.B. 1947, University of Southern California	
DeWitt, James Corwin (III)	Va.	Foulke, Charles William (I)	Ohio
B.S. 1943, Mount Union College		A.B. 1949, Ohio State University	
DiBenedetto, Anthony Domenico (IV)	N.Y.	Fowler, Edward Vincent (I)	Md.
B.S. 1943, Villanova College		B.S. 1949, University of Maryland	
Dobson, Richard Hal (I)	Va.	Funt, Tobias (IV)	Mo.
B.S. 1949, Kansas State College		A.B. 1938, University of Missouri	
Domann, William Arthur (I)	Wis.	Furlow, William Loomis (I)	Minn.
B.S. 1948, University of Wisconsin		A.B. 1949, Carleton College	
Doran, Stephen Mark (IV)	Mich.	G	
Doriety, James Douglas (I)	N.J.	Gall, John Christian, Jr. (I)	Va.
B.S. 1949, Villanova College		Gargano, Fredie Patrick (II)	N.J.
Dotson, Maryanna Elizabeth (III)	D.C.	B.S. 1947, The George Washington University	
A.B. 1948, The George Washington University		Garnett, James Harper Poor (IV)	D.C.
Doyle, John Benedict, Jr. (II)	Calif.	A.B. 1947, University of Virginia	
A.B. 1948, University of California at Los Angeles		Gates, John William (III)	Calif.
DuBroff, Seymour (III)	D.C.	George, Harry Clair (IV)	Ohio
A.B. 1948, The George Washington University		B.S. 1944, Mount Union College	
Duffy, Charles Creighton (I)	Md.	Gerbie, Albert Bernard (III)	Ohio
B.S. 1949, University of Nevada		Gibson, James Wallace (IV)	Va.
E		B.S. 1941, Hampden-Sydney College	
Eanet, Morton Philip (III)	D.C.	Gillard, William Henry (I)	D.C.
A.B. 1947, Yale University		Gillette, Warren (IV)	D.C.
Eccleston, Harold Norris, Jr. (II)	Md.	B.S. 1942, California Institute of Technology	
Ehrmantraut, Wilfred Russell (II)	Md.	Gillman, Robert David (IV)	D.C.
B.S. 1948, University of Maryland		A.B. 1939, Yale University	
Eilenberg, David (II)	N.J.	A.M. 1946, Columbia University	
A.B. 1949, The George Washington University		Gimble, Abraham Isaac (II)	D.C.
Ennis, Harry Hughes (II)	Utah	B.S. 1943, M.S. 1948, The George Washington University	
A.B. 1948, Brigham Young University		Glew, William Bainbridge (I)	D.C.
Epstein, Jerome Harold (I)	D.C.	Godbey, Gloria Swanson (II)	D.C.
A.B. 1947, New York University		A.B. 1949, The George Washington University	
A.M. 1948, The George Washington University		Goodman, Clifford James (III)	Ariz.
Erickson, Robert Lyle (IV)	D.C.	B.S. 1947, The George Washington University	
Everding, Charles Jerome (IV)	Md.	Gordon, Howard Leo (I)	D.C.
Everhart, Clarence Edward, Jr. (II)	Ohio	B.S. 1948, Georgetown University	
B.S. 1948, Western Reserve University		Gordon, James Kirke (II)	Va.
F		A.B. 1949, The George Washington University	
Fabi, Mario Nestor (IV)	Pa.	Gould, Stanley Benton (I)	Md.
Farr, Boyd Joseph (II)	Utah	B.S. 1949, Haverford College	
Fealy, Jack (III)	Ala.	Greaver, Keith Carpenter (III)	Idaho
B.S. 1947, Birmingham-Southern College		B.S. 1941, University of Idaho	
Federle, Jesse Alan (II)	Nebr.	Green, Jess Downing, Jr. (IV)	Va.
A.B. 1949, The George Washington University		A.B. 1944, University of Kansas City	
Feezel, Richard Albert (III)	Ohio	Green, William Oliver, Jr. (II)	D.C.
B.S. 1948, Western Reserve University		A.B. 1949, The George Washington University	
Feltman, Robert Ferree (II)	Va.	H	
A.B. 1949, The George Washington University		Grunsten, Russell Carl (I)	Fla.
Ferguson, William Holmes (I)	D.C.	Guerin, Bernard K. (IV)	Md.
B.S. 1949, University of Tulsa		B.S. 1944, Louisiana State University	
Fernbach, Donald Joseph (II)	N.Y.	M.S. 1946, The George Washington University	
A.B. 1948, Tusculum College		Guthrie, Eugene Harding (III)	Md.
Files, George Everett (IV)	Md.		
B.S. 1943, Tufts College		Hagen, William August, Jr. (II)	Ohio
		A.B. 1948, Hiram College	



Hall, Allan (II)	N.J.	Kirchner, Francis Carlyle (II)	Md.
A.B. 1949, Columbia College		B.S. 1948, The George Washington University	
Hamby, Alice Walters (IV)	D.C.	Kleh, Thomas Robert (I)	Md.
A.B. 1943, Transylvania College		Klein, David Mendel (I)	D.C.
Hansen, Martin Edward (III)	Calif.	Klika, Raymond Riggs (III)	Ohio
Harrigan, John Thomas (I)	N.J.	Knapp, Robert Duane, Jr. (II)	D.C.
Harris, Forest Klaire (I)	D.C.	A.B. 1948, The George Washington University	
B.S. 1949, The George Washington University		Knox, Robert Ormiston, Jr. (IV)	D.C.
Haslup, Allen Lee (IV)	Fla.	A.B. 1947, The George Washington University	
Healy, Paul Thomas (I)	D.C.	Kolb, Karl Philip (IV)	D.C.
Henesy, Gregory Thomas (II)	D.C.	Krichmar, Robert Lawrence (III)	Va.
A.B. 1949, The George Washington University		A.B. 1943, Boston University	
Higbee, Charles Eldon (II)	N.Mex.		
Hollingsworth, James Boetler (I)	Md.	L	
Holzworth, Dorothy Catherine (III)	Md.	Larson, Robert LeRoy (I)	Mont.
A.B. 1944, Notre Dame College, Ind.		A.B. 1949, Montana State University	
A.M. 1946, Catholic University of America		Lasher, Jay Donald (III)	Pa.
Honig, Doris M. (II)	N.Y.	B.S. 1949, University of Pittsburgh	
A.B. 1944, Hunter College		Laughmiller, Roy William, Jr. (III)	Tenn.
Hopkins, Theodore Reed (III)	Calif.	A.B. 1947, Maryville College	
A.B. 1947, Stanford University		Leabhart, John William, Jr. (I)	Pa.
Horn, Henry Joseph (IV)	Pa.	Leary, Patrick James (I)	D.C.
B.S. 1941, Lehigh University		Leckie, Jack (IV)	Va.
Howard, Percy John (I)	Ala.	B.S. 1938, Marshall College	
B.S. 1949, University of Alabama		Lenarduzzi, David Rino (III)	D.C.
Howard, Robert Lynwood (III)	Ala.	A.B. 1948, The George Washington University	
A.B. 1948, University of Alabama		Littwin, Charles Stuart (IV)	N.J.
Hughes, Francis Homer, Jr. (IV)	D.C.	A.B. 1943, Hobart College	
B.S. 1946, Salem College		Longfellow, Day Woodward (I)	D.C.
Hunt, William George (I)	Iowa	Lyons, William Stewart (III)	D.C.
A.B. 1949, State University of Iowa		A.B. 1948, The George Washington University	
Hunton, Richard Edwin (II)	D.C.		
A.B. 1949, The George Washington University		M	
Hutt, James Brooke, Jr. (III)	Va.	Maffey, Ralph Burton (IV)	N.J.
B.S. in E.E. 1942, University of Michigan		B.S. 1943, Rutgers University	
Hyde, Grant Lafayette (III)	Calif.	Magleby, Dale Hanmer (I)	Idaho
		B.S. 1948, A.B. 1949, College of Idaho	
I		Magness, John Lower (IV)	Ohio
Ice, John Frederick (I)	Pa.	Mahney, John Gage (I)	Mich.
		B.S. 1949, Michigan State College	
J		Manahan, Raymond James (I)	Ohio
Jensen, Jack Monsen (I)	Md.	Mandes, James Charles (IV)	D.C.
Johnson, Howard Hamilton, Jr. (III)	D.C.	A.B. 1947, The George Washington University	
A.B. 1948, The George Washington University		Manthey, Richard Gledhill (II)	Ohio
		B.S. 1948, Western Reserve University	
K		Markwood, Carl Christopher (I)	Pa.
Kassenbrock, John Donald (I)	Calif.	B.S. 1949, St. Vincent College	
A.B. 1949, University of California		Martens, Doris Katharine (III)	Calif.
Kayhoe, Donald Ellsworth (IV)	Md.	A.B. 1944, University of Southern California	
A.B. 1946, The George Washington University		Martin, Dean Harrington (IV)	Md.
Kearney, Robert Thomas (I)	Colo.	Mattingly, Thomas Ernest, Jr. (III)	Md.
Kent, Stephen Garland (IV)	Va.	A.B. 1948, The George Washington University	
Kerr, Horace Eskew (II)	D.C.	Maupin, Dorothy Ray (I)	D.C.
A.B. 1949, The George Washington University		B.S. 1949, The George Washington University	
Keshishian, John Mark (IV)	D.C.	Mayberry, Paul Raymond (II)	Maine
Kingsley, Paul L. (I)	Md.	Mayne, John C. (II)	Mich.
B.S. 1937, Northwestern University		A.B. 1948, Albion College	
A.M. 1940, University of California at Los Angeles		McClelland, James Robert (III)	D.C.
Kinsman, Robert Gordon (I)	Md.	McCowin, Joseph Aaron (I)	Utah
Kirby, Taylor Herman (I)	Ala.	B.S. 1948, Utah State Agricultural College	
A.B. 1949, Birmingham-Southern College			



McCune, Violet Kellogg (III) A.B. 1948, The George Washington University	D.C.	P	
McGregor, John Gregor, Jr. (I) A.B. 1949, Stanford University	Ariz.	Padgett, Glenn Ernest (I) A.B. 1949, Duke University	Fla.
McMeel, John Wallace (I)	D.C.	Parrish, Matthew Denwood (IV) A.B. 1939, University of Virginia	Va.
McKelway, William Prentiss (IV) A.B. 1943, Washington and Lee University	D.C.	Paull, Alton Morton (IV)	R.I.
McWhirt, Joseph Russell (III) A.B. 1948, The George Washington University	D.C.	Pear, Bertram Lincoln (IV) A.B. 1947, The George Washington University	D.C.
Meaney, Thomas Francis (I) B.S. 1949, Georgetown University	D.C.	Pemberton, Henry Walter (II) A.B. 1947, Amherst College	Minn.
Meeker, John Harbeck (II) A.B. 1940, Drew University	D.C.	Perna, Louis Robert (I)	D.C.
Merritt, Arthur Donald (II) A.B. 1949, The George Washington University	N.J.	Phillips, Lawrence Vince (II) A.B. 1949, The George Washington University	D.C.
Metzerott, Kirk Oliver (II) A.B. 1948, The George Washington University	D.C.	Pickering, Woodrow Harold (II)	Ohio
Metzger, Joseph Francis (IV)	Minn.	Pidgeon, Joseph William (III)	N.Y.
Miesfeld, Roger Randolph (I) B.S. 1949, University of Wisconsin	Md.	Pillow, David James (I)	Va.
Millar, Glenn Collins (I)	Wis.	Pine, Donald Kay (II) A.B. 1949, The George Washington University	D.C.
Miller, Grant William (III) B.S. 1949, University of Washington	Calif.	Piver, Julius Samuel (II) B.S. 1948, The George Washington University	D.C.
Miller, Howell Douglas (I) D.V.M. 1941, Agricultural and Mechanical College of Texas	Va.	Plymyer, Ray Earl (II) B.S. 1948, Pennsylvania State College	Pa.
Miller, Maurice Myles (II) B.S. 1948, The George Washington University	D.C.	Poole, Robert Smallwood (I)	D.C.
Miller, Ralph Stewart (II) B.S. 1949, Rutgers University	Va.	Porter, Bennet Allen, Jr. (I)	D.C.
Monier, John Baptiste (II) B.S. 1941, University of Pittsburgh	D.C.	Potter, Stanley Eugene (II)	W.Va.
Monyak, John George (II) B.S. 1949, Geneva College	Va.	Price, Curtis Lee (I)	Calif.
Morledge, Charles Calvin (II)		Price, Elizabeth (III) A.B. 1941, Columbia University A.M. 1944, University of Minnesota	D.C.
Morris, Douglas Cockerille (IV)			
Mott, Richard Henry, Jr. (IV) A.B. 1947, The George Washington University		R	
Muhonen, Oliver Adolph (II)		Rapp, Raymond Edward, Jr. (II) B.S. 1948, The George Washington University	D.C.
		Rawlings, Joseph Edwin, Jr. (I)	Md.
N		Reyes, Raul Gregorio (IV)	Mexico
Naiden, Eulaine (IV) B.S. 1942, University of Idaho		Rhame, Harold Ellis, Jr. (III)	N.Y.
Nelson, Donald Sell (IV)		Rhame, Harold Ellis, Jr. (III)	N.Y.
Nelson, Warren James (I) B.S. 1948, University of Wisconsin		Ritts, Roy Elliot, Jr. (III) A.B. 1948, The George Washington University	D.C.
Nolan, Paul Joseph (I) B.S. 1949, Seton Hall College		Robertson, Jack Rodney (IV)	D.C.
		Robertson, Joseph William (III) B.S. 1947, Agricultural and Mechanical College of Texas	Tex.
O		Robin, Eugene Debs (III)	D.C.
Oakley, George D. (II) A.B. 1948, University of Hawaii		Rock, Herman Henry (IV) B.S. 1942, Washington State College	Wash.
Oftedal, Suerre John (IV) A.B. 1942, Occidental College		Rosenblum, David Joseph (I) B.S. 1949, The George Washington University	N.Y.
O'Gara, Roger William (III) A.B. 1948, The George Washington University		Rosendorf, Stanley Bernard (I) B.S. 1948, University of Maryland	Md.
Oilschlager, Gerald Albert (I)		Rosenthal, Melvin Stanley (II) A.B. 1949, The George Washington University	D.C.
Oram, Melvin (I) B.S. 1949, University of Scranton		Rowe, Frank Joseph (II)	N.J.
Owen, Richard Roberts (I) B.S. 1949, The George Washington University		Rubenstein, Norman Hartley (IV)	D.C.
		S	
		Sager, John Harmer (II) A.B. 1947, Princeton University	D.C.
		Sager, Stanley Melvin (I) A.B. 1949, Duke University	D.C.



Sanders, Bertram Webb (I)	Va.	Thorpe, Emmet Joseph (III)	D.C.
A.B. 1949, Earlham College		B.S. 1948, Western Reserve University	
Sandiford, George William (III)	D.C.	Titus, Elijah White, Jr. (II)	D.C.
Sandmeyer, Melvin Wesley, Jr. (I)	D.C.	Townsend, Charles Eby (III)	D.C.
Sansum, LaVane Earl (II)	Calif.	A.B. 1948, The George Washington University	
A.B. 1947, University of California		Tribble, William MacLohon (IV)	D.C.
Savarese, Charles Joseph, Jr. (IV)	D.C.	A.B. 1943, Princeton University	
A.B. 1941, University of North Carolina		Tripp, Richard Carlton (II)	Va.
Saville, John William (I)	Md.	A.B. 1947, State University of Iowa	
Schmidt, Donald Gerry (IV)	Mont.	Tsomidis, James Leonidas (I)	Maine
B.S. 1942, University of Washington		Tugendhaft, Robert Irwin (II)	D.C.
Schmidt, William F. (III)	N.Y.	B.S. 1948, The George Washington University	
A.B. 1949, The George Washington University		U	
Schultz, Theodore Arthur (II)	D.C.	Uhrik, Irene Joan (III)	Pa.
B.S. 1948, Capital University		B.S. 1943, M.S. 1946, Pennsylvania State College	
Schurter, Maxine Ann (III)	D.C.	Umhau, John B. (II)	D.C.
A.B. 1944, Pomona College		A.B. 1949, The George Washington University	
Schwartz, Julius Louis (III)	N.Y.	Unger, Howard Robert (II)	D.C.
A.B. 1947, New York University		A.B. 1949, The George Washington University	
Seborer, Miriam Zeitlin (IV)	D.C.	Upton, Emily Frances (IV)	Md.
A.B. 1939, Hunter College		B.S. 1942, University of Maryland	
A.M. 1940, Columbia University		V	
Silverberg, Stanley Melvin (II)	D.C.	Van de Water, Malcolm Stickle (III)	Fla.
B.S. 1948, The George Washington University		Vann, Clarence Houston (I)	Mich.
Smith, Casper Hayden, Jr. (I)	Okla.	B.S. 1947, Wayne University	
Smith, Samuel Rodmond (III)	Va.	Varvaressos, Yvonne (I)	D.C.
Solomon, Carl Edward (I)	Ohio	Vigoreaux, Jose Ramon (III)	Puerto Rico
Speevack, Harold Lynn (I)	Ohio	Vivion, Charles George (II)	Wyo.
B.S. 1940, Ohio State University		W	
Sprowell, Robert Roy (II)	Wyo.	Waalkes, Teunis Phillip (III)	D.C.
A.B. 1948, University of Denver		B.S. 1942, Hope College	
Stachowiak, Edward Joseph (I)	Pa.	Ph.D. 1945, Ohio State University	
Stage, Anson Hutchinson (II)	Va.	Wacker, Warren Ernest Clyde (III)	Va.
Stahl, Robert William (II)	Va.	Wade, Robert Lee (III)	Calif.
A.B. 1948, Gettysburg College		Waldrop, Francis Neil (IV)	Md.
Stallings, James Henry, Jr. (II)	D.C.	A.B. 1946, University of Minnesota	
A.B. 1948, Duke University		Walter, Katherine Mariam (IV)	Md.
Stamey, Harry Clay (II)	Pa.	B.S. 1944, The George Washington University	
A.B. 1949, The George Washington University		Weaver, Frank Lloyd, Jr. (IV)	Mich.
Stansfield, James Arthur (I)	Wash.	A.B. 1947, The George Washington University	
B.S. 1949, Washington State College		Wellso, Charles George (I)	Wis.
Stein, Harold Lawson (IV)	N.Y.	B.S. 1949, University of Wisconsin	
A.B. 1947, The George Washington University		West, Marc Lee (II)	D.C.
Stewart, Allan Hugh (II)	Calif.	B.S. 1948, The George Washington University	
Stewart, Henry (II)	Nev.	Wherry, David Colwell (II)	Nebr.
A.B. 1948, University of Nevada		A.B. 1948, The George Washington University	
Stewart, Jones Hartsell (I)	D.C.	Whisenand, Benjamin Murray (III)	Oreg.
B.S. 1949, Alabama Polytechnic Institute		Whitehead, Roger Donald (II)	Calif.
Stokes, James Arthur (II)	Fla.	Willett, Edwin Dexter (IV)	Md.
Straight, Belinda Crompton (III)	N.Y.	Williams, Polly Teed (I)	D.C.
Strasser, Noel Faine (I)	Ky.	B.S. 1948, The George Washington University	
Stronski, Gerald Edward (I)	Mich.	Wilson, William Dean (III)	Wyo.
Stump, Charles Albert (II)	W.Va.	B.S. 1949, University of Wyoming	
A.B. 1948, University of Pennsylvania		Wineland, Robert Kenneth (III)	D.C.
Switzer, Walter Edwin (IV)	Ill.	A.B. 1948, The George Washington University	
M.S. 1941, University of Illinois			
T			
Teagle, Ernest Howard (I)	D.C.		
Thibadeau, Andrew Francis (IV)	Md.		
A.B. 1948, The George Washington University			
Thomas, Paul Augustus, Jr. (II)	Pa.		
B.S. 1949, The George Washington University			



Winter, Frank Ephraim (IV)	N.Y.	Y	
B.S. 1943, University of Pittsburgh			
Woidich, Francis DeSales (II)	D.C.	Yanowitz, Arthur (IV)	N.Y.
B.S. 1945, Harvard University		Yedziniak, Michael Aloysius (III)	Conn.
Wood, Edwin Charles (IV)	D.C.	Young, Robert (III)	D.C.
Wroth, Ralph Lane (III)	Pa.	A.B. 1948, The George Washington University	
A.B. 1947, Kenyon College			



## SUMMARIES OF REGISTRATION

1949-50

### NUMBER OF REGISTRANTS

Class entering September 1949.....	94
Class entering September 1948.....	84
Class entering September 1947.....	75
Class entering September 1946.....	78
Total.....	331

### GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Alabama .....	4	New Jersey .....	14
Arizona .....	2	New Mexico .....	2
California .....	17	New York .....	15
Colorado .....	1	North Carolina .....	2
Connecticut .....	1	Ohio .....	15
District of Columbia .....	113	Oklahoma .....	1
Florida .....	8	Oregon .....	1
Georgia .....	1	Pennsylvania .....	18
Idaho .....	3	Rhode Island .....	1
Illinois .....	2	Tennessee .....	2
Indiana .....	1	Texas .....	1
Iowa .....	1	Utah .....	3
Kentucky .....	2	Virginia .....	29
Maine .....	2	Washington .....	3
Maryland .....	34	West Virginia .....	2
Massachusetts .....	1	Wisconsin .....	3
Michigan .....	7	Wyoming .....	3
Minnesota .....	4	Hawaii .....	1
Missouri .....	1	Puerto Rico .....	3
Montana .....	2	Mexico .....	1
Nebraska .....	2	Total.....	331
Nevada .....	2		

### GRADUATES OF COLLEGES REGISTERED IN THE SCHOOL OF MEDICINE

Alabama, University of .....	2	Catholic University of America ..	1
Alabama Polytechnic Institute ..	1	Chicago, University of .....	1
Albion College .....	1	Cincinnati, University of .....	1
American University .....	1	Columbia College .....	2
Amherst College .....	1	Columbia University .....	3
Birmingham-Southern University.	2	Denver University .....	1
Boston University .....	1	Drew University .....	1
Brooklyn College .....	1	Duke University .....	3
California, University of .....	2	Earlham College .....	1
California, University of, Los Angeles .....	2	Florida, University of .....	1
California Institute of Technology	1	Geneva College .....	1
Capital University .....	1	George Washington University..	78
Carleton College .....	1	Georgetown University .....	3
		Gettysburg College .....	1



Hamilton College .....	1	Pittsburgh, University of .....	5
Hampton-Sydney College .....	1	Pomona College .....	1
Harvard University .....	1	Princeton University .....	3
Haverford College .....	1	Puerto Rico, University of .....	1
Hawaii, University of .....	1	Rochester, University of .....	1
Hiram College .....	1	Rutgers University .....	3
Hobart College .....	1	St. Vincent College .....	1
Hope College .....	1	Salem College .....	1
Hunter College .....	2	Scranton, University of .....	1
Idaho, University of .....	2	Seton Hall College .....	1
Illinois, University of .....	1	South Carolina, University of ..	1
Iowa, State University of .....	2	Southern California, University of	2
Kansas City, University of .....	1	Stanford University .....	2
Kansas State College .....	1	Texas, Agricultural and Mechan-	
Kentucky, University of .....	1	ical College of .....	2
Kenyon College .....	1	Transylvania University .....	2
Lehigh University .....	1	Trinity College .....	1
Louisiana State University .....	1	Tufts College .....	1
Marshall College .....	1	Tusculum College .....	1
Maryland, University of .....	5	Utah State Agricultural College .	1
Maryville College .....	1	Villanova College .....	4
Michigan, University of .....	3	Virginia, University of .....	2
Michigan State College .....	1	Washington, University of .....	3
Minnesota, University of .....	2	Washington and Lee University	1
Missouri, University of .....	1	Washington State College .....	2
Montana State University .....	1	Wayne University .....	1
Mount Holyoke College .....	1	Western Reserve University ....	5
Mount Union College .....	2	Westminster College .....	1
Nevada, University of .....	2	Wheaton College, Ill. ....	1
New York University .....	2	Wisconsin, University of .....	4
North Carolina, University of ..	1	Wyoming, University of .....	1
Northwestern University .....	2	Yale University .....	2
Notre Dame of Maryland, Col-			
lege of .....	1		
Ohio State University .....	3	Number of College Graduates	227
Pennsylvania, University of .....	1	Number of Colleges Repre-	
Pennsylvania State College .....	3	sented .....	94



## INDEX



# INDEX



## INDEX

### A

Administration, Officers of, 2  
 Administrative assistants, 26  
 Admission, 32-34:  
   Application for, 34  
   Premedical-college requirements for, 33  
   Secondary-school requirements for, 33  
 Advanced standing, 33  
 Anatomy, courses in, 43  
 Anesthesiology, courses in, 44  
 Arts and Medicine, combined curriculum, 39  
 Assistants in Instruction, 24-25  
 Attendance, 35  
 Awards, 37

### B

Bachelor of Arts, degree of, 39  
 Bacteriology, courses in, 45-46  
 Biochemistry, courses in, 47

### C

Calendar of the School, 1950-51, vi  
 Clinics, 31-32  
 Colleges from which students hold degrees, 83-84  
 Committees of the Faculty, 28-29  
 Courses of instruction, 42-75:  
   Numbers and symbols used in connection with, 42

### D

Degrees conferred in 1949, 76  
 Departments of instruction, 29-30, 42-75  
 Dermatology, courses in, 48  
 Doctor of Medicine, degree of, 39

### E

Emeritus professors, 4  
 Equipment and facilities, 30-31  
 Examinations, 36

### F

Faculty, 27  
 Fees, 34-35:  
   Payment of, 34-35  
 Financial regulations, 34-35

### G

Geographical distribution of students, 83  
 Grades, 36  
 Gynecology, courses in, 57-59

### H

Health Administration, 36-37  
 History of the School, 29  
 Honor Societies, 37  
 Honors, 39  
 Hospital appointments, 32  
 Hygiene, courses in, 46

### I

Intern training, 40

### L

Library, 31  
 Living accommodations, 38-39  
 Loan funds, 35

### M

Medical School Building, 24  
 Medical Technologist Course, 40-41  
 Medical Unit, Reserve Officers' Training Corps, U. S. Army, 37-38  
 Medicine, courses in, 49-53  
 Military Science and Tactics, courses in, 54

### N

Neurology, courses in, 55-56  
 Neurological Surgery, courses in, 55-56

### O

Obstetrics, courses in, 57-59  
 Ophthalmology, courses in, 60  
 Orthoptic Technician Course, 40  
 Oto-rhino-laryngology, courses in, 61

### P

Pathology, courses in, 62  
 Pediatrics, courses in, 63-64  
 Pharmacology, courses in, 65  
 Physical examinations, 32  
 Physical Medicine, courses in, 66  
 Physiology, courses in, 67-68  
 Plan of instruction, 29-30  
 Postgraduate instruction, 40  
 Preventive Medicine, courses in, 46  
 Prizes, 37  
 Psychiatry, courses in, 69-70

### R

Radiology, courses in, 71  
 Registration, 34:  
   Summaries of, 83-84  
 Regulations, 35-36  
 Research, assistants in, 24-25  
 Resident training, 40



## S

Scholarships, 37  
 Staff of Instruction, 3-24  
 Standing of the School, 29  
 Student equipment, cost of, 35  
 Students registered, 77-82  
 Surgery, courses in, 72-74  
 Syphilology, courses in, 48

## T

Technical assistants, 26  
 Textbooks, cost of, 25  
 Trustees, Board of, 1

## U

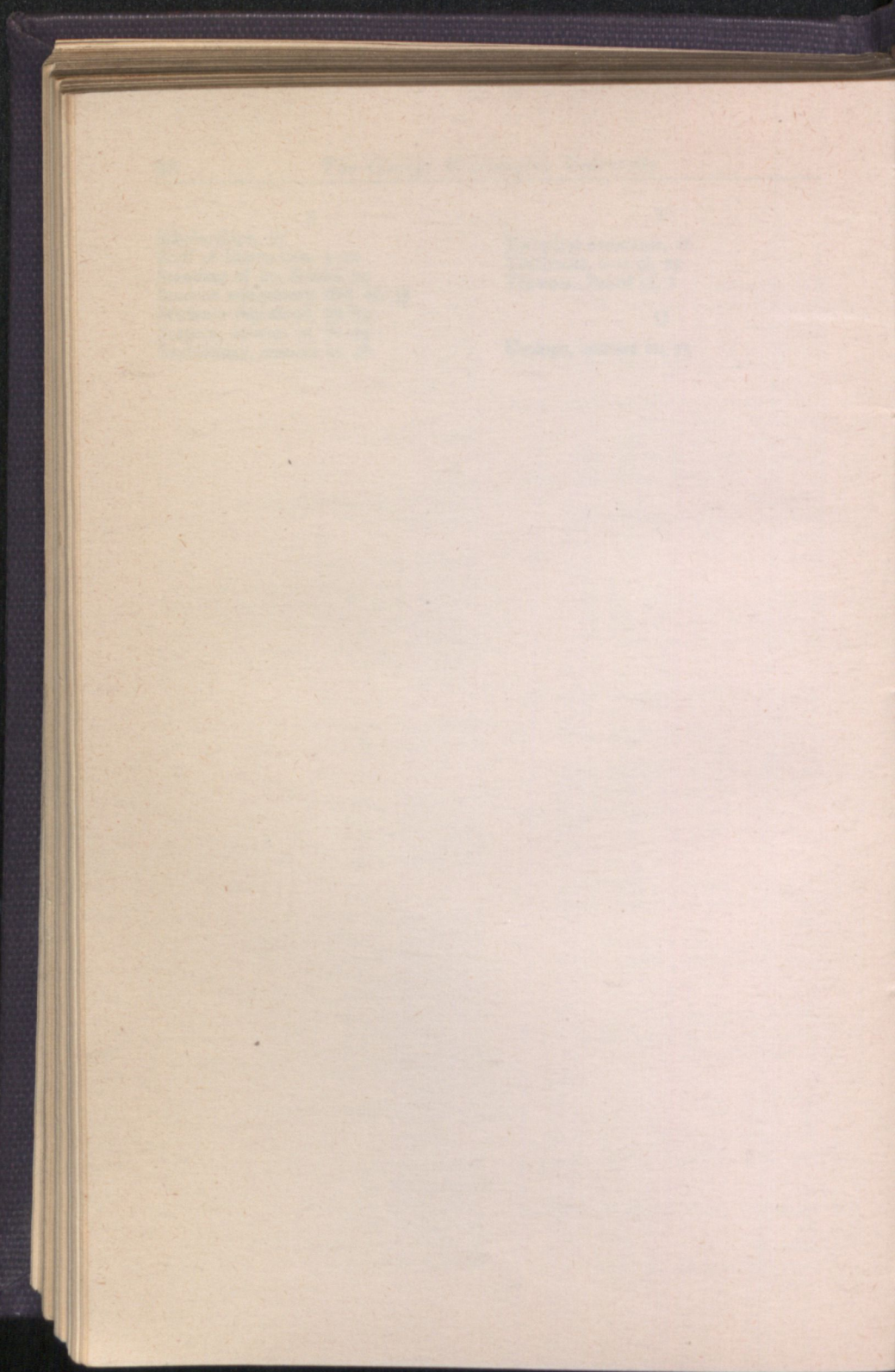
Urology, courses in, 75



THE CATHOLIC ISSUE

1971-72







THE  
GEORGE  
WASHINGTON  
UNIVERSITY

BULLETIN  
THE CATALOGUE ISSUE

1950-51

No. 5

THE CATALOGUE ISSUE

WASHINGTON, D. C.

PUBLISHED IN JULY  
1951

THE UNIVERSITY



THE CATALOGUE ISSUE

1920-21



THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

---

VOL. XLIX

No. 5

---

THE CATALOGUE ISSUE

---

WASHINGTON, D. C.

PUBLISHED IN JULY  
MCML

BY THE UNIVERSITY



THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

No. 2

Vol. XLIX

THE CATALOGUE ISSUE

WASHINGTON, D. C.

PUBLISHED IN 1917  
MCMXVII

BY THE UNIVERSITY



## CONTENTS

THE UNIVERSITY CALENDAR.....	vii
OFFICERS AND COMMITTEES OF THE UNIVERSITY.....	xiii
The Board of Trustees.....	xv
Standing Committees of the Board of Trustees.....	xvii
Officers of Administration.....	xix
The Academic Council.....	xxi
Standing Committees of the Faculty.....	xxiii
Emeritus Faculty .....	xxv
Faculty and Staff of Instruction.....	xxvii
Administrative Assistants.....	lxiv
THE UNIVERSITY.....	i
History and Organization.....	3
Educational Facilities .....	7
Admission .....	11
Registration .....	20
Fees and Financial Regulations.....	21
Fellowships, Scholarships, Prizes, Financial Aid.....	24
Regulations .....	36
Veterans Education .....	43
THE COLLEGES, SCHOOLS, AND DIVISIONS.....	45
The Junior College.....	47
Columbian College (the senior college).....	63
The Graduate Council.....	80
The School of Medicine.....	88
The Law School.....	99
The School of Engineering.....	108
The School of Pharmacy.....	119
The School of Education.....	127
The School of Government.....	139
The Division of University Students.....	152
The Division of Special Students.....	153
The Summer Sessions.....	155
COURSES OF INSTRUCTION.....	157
Accounting .....	161
Anatomy .....	164
Anesthesiology .....	165
Art .....	166
Bacteriology, Hygiene, and Preventive Medicine.....	168
Biochemistry .....	170
Biology .....	172
Botany .....	173



	Page
Business Administration.....	176
Chemistry .....	180
Civil Engineering.....	185
Classical Languages and Literatures.....	188
Dermatology and Syphilology.....	189
Economics .....	190
Education .....	196
Electrical Engineering.....	202
English .....	205
Geography .....	210
Geology .....	213
Germanic Languages and Literatures.....	214
Health Administration.....	216
History .....	217
Home Economics.....	222
Journalism .....	225
Law .....	227
Mathematics .....	234
Mechanical Engineering.....	237
Medicine .....	240
Military Science and Tactics.....	245
Neurology and Neurological Surgery.....	246
Obstetrics and Gynecology.....	247
Ophthalmology .....	250
Oto-rhino-laryngology .....	251
Pathology .....	252
Pediatrics .....	253
Pharmacology .....	255
Pharmacy .....	256
Philosophy .....	261
Physical Education for Men.....	263
Physical Education for Women.....	268
Physical Medicine.....	273
Physics .....	274
Physiology .....	278
Political Science.....	280
Psychiatry .....	285
Psychology .....	287
Radiology .....	293
Religion .....	294
Romance Languages and Literatures.....	296
Secretarial Studies.....	302
Sociology .....	304
Speech .....	307
Statistics .....	311
Surgery .....	316
Urology .....	319
Zoology .....	320
STUDENT LIFE.....	325
INDEX .....	333



# THE UNIVERSITY CALENDAR

# THE UNIVERSITY CALENDAR



1950							1951													
July							January							July						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	..	..	..	..	..	1	..	1	2	3	4	5	6	1	2	3	4	5	6	7
2	3	4	5	6	7	8	7	8	9	10	11	12	13	8	9	10	11	12	13	14
9	10	11	12	13	14	15	14	15	16	17	18	19	20	15	16	17	18	19	20	21
16	17	18	19	20	21	22	21	22	23	24	25	26	27	22	23	24	25	26	27	28
23	24	25	26	27	28	29	28	29	30	31	..	..	..	29	30	31	..	..	..	..
30	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
August							February							August						
..	..	1	2	3	4	5	..	..	..	..	1	2	3	..	..	..	1	2	3	4
6	7	8	9	10	11	12	4	5	6	7	8	9	10	5	6	7	8	9	10	11
13	14	15	16	17	18	19	11	12	13	14	15	16	17	12	13	14	15	16	17	18
20	21	22	23	24	25	26	18	19	20	21	22	23	24	19	20	21	22	23	24	25
27	28	29	30	31	..	..	25	26	27	28	..	..	..	26	27	28	29	30	31	..
September							March							September						
..	..	..	..	..	1	2	..	..	..	..	1	2	3	..	..	..	..	..	..	1
3	4	5	6	7	8	9	4	5	6	7	8	9	10	2	3	4	5	6	7	8
10	11	12	13	14	15	16	11	12	13	14	15	16	17	9	10	11	12	13	14	15
17	18	19	20	21	22	23	18	19	20	21	22	23	24	16	17	18	19	20	21	22
24	25	26	27	28	29	30	25	26	27	28	29	30	31	23	24	25	26	27	28	29
..	..	..	..	..	..	..	..	..	..	..	..	..	..	30	..	..	..	..	..	..
October							April							October						
1	2	3	4	5	6	7	1	2	3	4	5	6	7	..	1	2	3	4	5	6
8	9	10	11	12	13	14	8	9	10	11	12	13	14	7	8	9	10	11	12	13
15	16	17	18	19	20	21	15	16	17	18	19	20	21	14	15	16	17	18	19	20
22	23	24	25	26	27	28	22	23	24	25	26	27	28	21	22	23	24	25	26	27
29	30	31	..	..	..	..	29	30	..	..	..	..	..	28	29	30	31	..	..	..
November							May							November						
..	..	..	1	2	3	4	..	..	1	2	3	4	5	..	..	..	..	1	2	3
5	6	7	8	9	10	11	6	7	8	9	10	11	12	4	5	6	7	8	9	10
12	13	14	15	16	17	18	13	14	15	16	17	18	19	11	12	13	14	15	16	17
19	20	21	22	23	24	25	20	21	22	23	24	25	26	18	19	20	21	22	23	24
26	27	28	29	30	..	..	27	28	29	30	31	..	..	25	26	27	28	29	30	..
December							June							December						
..	..	..	..	..	1	2	..	..	..	..	..	1	2	..	..	..	..	..	1	..
3	4	5	6	7	8	9	3	4	5	6	7	8	9	2	3	4	5	6	7	8
10	11	12	13	14	15	16	10	11	12	13	14	15	16	9	10	11	12	13	14	15
17	18	19	20	21	22	23	17	18	19	20	21	22	23	16	17	18	19	20	21	22
24	25	26	27	28	29	30	24	25	26	27	28	29	30	23	24	25	26	27	28	29
31	..	..	..	..	..	..	..	..	..	..	..	..	..	30	31	..	..	..	..	..



# THE UNIVERSITY CALENDAR \*

## 1950-51

Date	Day	Occasion
1950 FALL TERM:		
Sept. 26 .....	Tuesday .....	Meeting of the University Faculty Examinations for students who wish to qualify for advanced courses or waive curriculum re- quirements
Sept. 27-29 ...	Wednesday through Friday .....	Registration
Oct. 2 .....	Monday .....	Academic year begins
Oct. 12 .....	Thursday .....	Stated meeting of the Board of Trustees
Oct. 13 .....	Friday .....	Last day on which candidates may file thesis subjects for the Master's degrees conferred in February
Oct. 20 .....	Friday .....	Last day on which candidates may file dissertation subjects for the degrees of Doctor of Philosophy, Doctor of Juridical Science, and Doctor of Edu- cation to be conferred the fol- lowing May
Nov. 11 .....	Saturday .....	Fall Convocation. Holiday
Nov. 23-25 ...	Thursday through Saturday .....	Thanksgiving Recess
Dec. 5 .....	Tuesday .....	Meeting of the Academic Council
Dec. 9 .....	Saturday .....	Foreign-language examinations for candidates for the Master's de- grees
Dec. 14 .....	Thursday .....	Stated meeting of the Board of Trustees
Dec. 22-Jan. 2.	Friday through Tuesday .....	Christmas recess
1951 Jan. 3 .....	Wednesday .....	Classes resume
Jan. 5 .....	Friday .....	Last day for applications for de- grees to be conferred in Feb- ruary
		Last day for receiving disserta- tions of candidates for the de- grees of Doctor of Philosophy, Doctor of Juridical Science, and Doctor of Education to be con- ferred in February

\* In the School of Medicine, registration is conducted September 14 and 15, classes begin September 18.



## THE UNIVERSITY CALENDAR—Continued

Date	Day	Occasion
Jan. 8 .....	Monday .....	Last day for receiving theses of candidates for the Master's degrees and for the professional degrees in Engineering to be conferred in February
Jan. 20 .....	Saturday .....	Last day of classes for the fall term
Jan. 22-30 ....	Monday through Tuesday .....	Fall term examination period
WINTER TERM: Jan. 31 .....	Wednesday .....	Examinations for students who wish to qualify for advanced courses or waive curriculum requirements
Feb. 1 and 2...	Thursday and Friday..	Registration
Feb. 5 .....	Monday .....	Classes resume for the winter term
Feb. 8 .....	Thursday .....	Stated meeting of the Board of Trustees
Feb. 16 .....	Friday .....	Last day on which candidates may file thesis subjects for the Master's degrees to be conferred in May
Feb. 22 .....	Thursday .....	Winter Convocation. Holiday
March 1 .....	Thursday .....	Applications for fellowships for 1951-52 should be filed
March 8 .....	Thursday .....	Stated meeting of the Board of Trustees
March 20 .....	Tuesday .....	Meeting of the University Faculty
March 23 and 24	Friday and Saturday..	Easter recess
April 13 .....	Friday .....	Last day for receiving dissertations of candidates for the degrees of Doctor of Philosophy, Doctor of Juridical Science, and Doctor of Education to be conferred in May
		Last day on which candidates may file dissertation subjects for the degrees of Doctor of Philosophy, Doctor of Juridical Science, and Doctor of Education to be conferred the following February
April 14 .....	Saturday .....	Last day for applications for degrees to be conferred in May
		Foreign-language examinations for candidates for the Master's degrees
April 24 .....	Tuesday .....	Meeting of the Academic Council
May 1 .....	Tuesday .....	Applications for scholarships for 1951-52 should be filed



## THE UNIVERSITY CALENDAR—Continued

Date	Day	Occasion
May 2 .....	Wednesday .....	Last day for receiving theses of candidates for the Master's degrees and for the professional degrees in Engineering to be conferred in May
May 15 .....	Tuesday .....	Last day of classes for the winter term
May 16-24 ....	Wednesday through Thursday .....	Winter term examination period
May 17 .....	Thursday .....	Annual meeting of the Board of Trustees
May 27 .....	Sunday .....	Baccalaureate Sermon
May 30 .....	Wednesday .....	Commencement
<b>SUMMER TERM:*</b>		
June 4 .....	Monday .....	Registration of new students for the first session and the fifteen-week term of the summer term
June 5 .....	Tuesday .....	Classes begin
July 4 .....	Wednesday .....	Independence Day. Holiday
July 30 .....	Monday .....	First summer session ends
July 31 .....	Tuesday .....	Registration for the second session of the summer term
Aug. 1 .....	Wednesday .....	Classes begin
Aug. 6 .....	Monday .....	Last day for applications for degrees to be conferred in November
Aug. 25 .....	Saturday .....	Foreign-language examinations for candidates for the Master's degrees
Sept. 3 .....	Monday .....	Labor Day. Holiday
Sept. 14 .....	Friday .....	Fifteen-week term ends
Sept. 21 .....	Friday .....	Second summer session ends
		Last day for receiving theses for the Master's degrees and for the professional degrees in Engineering to be conferred in November
Sept. 24 .....	Monday .....	Last day for receiving dissertations of candidates for the degrees of Doctor of Philosophy, Doctor of Juridical Science, and Doctor of Education to be conferred in November.
Sept. 26-28 ....	Wednesday through Friday .....	Registration for the fall term of the academic year 1951-52

\* The calendar for the Law School is as follows: first session, June 4-July 31; Second Session, August 1-September 25.  
 The calendar for the special sessions of the School of Education is as follows: Presession, June 11-30; Six-Week Session, July 2-August 11; Postsession, August 13-31. Registration for each of these sessions is on the first day of classes.



# THE UNIVERSITY CALENDAR—Continued

Day	Month	Event
May 1	Monday	Registration for the first session of the summer term begins.
May 2	Tuesday	Registration for the first session of the summer term continues.
May 3	Wednesday	Registration for the first session of the summer term continues.
May 4	Thursday	Registration for the first session of the summer term continues.
May 5	Friday	Registration for the first session of the summer term continues.
May 6	Saturday	Registration for the first session of the summer term continues.
May 7	Sunday	Registration for the first session of the summer term continues.
May 8	Monday	Registration for the first session of the summer term continues.
May 9	Tuesday	Registration for the first session of the summer term continues.
May 10	Wednesday	Registration for the first session of the summer term continues.
May 11	Thursday	Registration for the first session of the summer term continues.
May 12	Friday	Registration for the first session of the summer term continues.
May 13	Saturday	Registration for the first session of the summer term continues.
May 14	Sunday	Registration for the first session of the summer term continues.
May 15	Monday	Registration for the first session of the summer term continues.
May 16	Tuesday	Registration for the first session of the summer term continues.
May 17	Wednesday	Registration for the first session of the summer term continues.
May 18	Thursday	Registration for the first session of the summer term continues.
May 19	Friday	Registration for the first session of the summer term continues.
May 20	Saturday	Registration for the first session of the summer term continues.
May 21	Sunday	Registration for the first session of the summer term continues.
May 22	Monday	Registration for the first session of the summer term continues.
May 23	Tuesday	Registration for the first session of the summer term continues.
May 24	Wednesday	Registration for the first session of the summer term continues.
May 25	Thursday	Registration for the first session of the summer term continues.
May 26	Friday	Registration for the first session of the summer term continues.
May 27	Saturday	Registration for the first session of the summer term continues.
May 28	Sunday	Registration for the first session of the summer term continues.
May 29	Monday	Registration for the first session of the summer term continues.
May 30	Tuesday	Registration for the first session of the summer term continues.
May 31	Wednesday	Registration for the first session of the summer term continues.

The University Calendar is published annually by the University of Chicago Press. It contains a complete list of the events of the year, including the dates of the various sessions, the dates of the various examinations, and the dates of the various holidays. It is a valuable reference work for all students and faculty members of the University.



## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President and Vice President of the University ex officio and the following persons by election:

1930

Charles Allen Applewell, 1120 Fifteenth Street  
Edward James Briggs, Ph.D., Sc.D., D.Eag., LL.B., National Bureau of Standards

Rory Parsons-Evins, A.B., Hulse Building

Mrs. Joseph Frank, Jr., A.B., Ed.D., 1403 Lowell Street

Robert Miller Pratt, A.B., LL.M., 718 Jackson Place

John Edgar Hoover, LL.M., LL.D., United States Department of Justice

Frank J. Scheller, A.B., LL.D., 1403 Lowell Street  
New York

Walter Robert Underman, A.B., LL.D., 3415 Edgewood Lane  
Bethesda, Maryland

1931

Frank William Elliott, A.B., LL.B., 701 Union Trust Building

Robert Conner, A.M., LL.D., LL.M., National Geographic Society

Charles Ross, A.B., LL.B., LL.D., The Home Office Building

John Henry Lewis, LL.B., Washington Loan and Trust Company

William Henry McEwen, The Evening Star Building

Charles Washington Owen, LL.M., 2121 Fourth Street Northeast

John Robert Wilson, 2121 Connecticut Avenue

1932

John Henry Lewis, LL.B., LL.D., Colorado Building

Robert Conner, LL.B., LL.D., LL.M., 1815 K Street

Charles Ross, A.B., LL.B., LL.D., 1714 K Street

John Henry Lewis, LL.B., 2121 National Bank

William Henry McEwen, LL.B., 2121 National Bank

Charles Washington Owen, LL.M., 2121 National Bank and Trust

Building



OFFICERS AND COMMITTEES  
OF THE UNIVERSITY



## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President and Vice-President of the University ex officio and the following persons by election:

1950

- Clarence Aiken Aspinwall; 1140 Fifteenth Street  
 Lyman James Briggs, Ph.D., Sc.D., D.Eng., LL.D.; National Bureau of Standards  
 Henry Parsons Erwin, A.B.; Hibbs Building  
 Mrs. Joshua Evans, Jr., A.B., Ed.D.; 3405 Lowell Street  
 \*Robert Elliott Freer, A.B., LL.M.; 712 Jackson Place  
 John Edgar Hoover, LL.M., LL.D.; United States Department of Justice  
 \*Frank Atherton Howard, B.S. in M.E., LL.B.; 30 Rockefeller Plaza, New York City  
 Walter Rupert Tuckerman, A.B., LL.B.; 5415 Edgemoor Lane, Bethesda, Maryland

1951

- Newell Windom Ellison, A.B., LL.B.; 701 Union Trust Building  
 Gilbert Grosvenor, A.M., LL.D., Litt.D.; National Geographic Society  
 \*Brooks Hays, A.B., LL.B., LL.D.; The House Office Building  
 Alfred Henry Lawson, LL.B.; Washington Loan and Trust Company  
 Benjamin Mosby McKelway, The Evening Star Building  
 \*Claude Worthington Owen, LL.M.; 2321 Fourth Street Northeast  
 Lloyd Bennett Wilson; 2100 Connecticut Avenue

1952

- John St. Clair Brookes, Jr., A.M., LL.B.; Colorado Building  
 Homer Cummings, Ph.B., LL.B., LL.D., L.H.D.; 1625 K Street  
 \*Watson Davis, B.S. in C.E., C.E.; 1719 N Street  
 Robert Vedder Fleming, LL.D.; Riggs National Bank  
 Charles Carroll Glover, Jr., A.M., LL.B.; Riggs National Bank  
 Mrs. Henry Alvah Strong, LL.D.; 502 National Savings and Trust Building

\* Nominated by the alumni.



Alexander Wetmore, Ph.D., Sc.D.; Smithsonian Institution  
 \*Charles Stanley White, M.D., Sc.D.; 1801 I Street

*Chairman of the Board of Trustees*  
 Robert Vedder Fleming

*Secretary of the Board of Trustees*  
 Henry Parsons Erwin

*Assistant Secretary of the Board of Trustees*  
 Newell Windom Ellison



## STANDING COMMITTEES OF THE BOARD OF TRUSTEES

The Chairman of the Board of Trustees and the President of the University shall be members ex officio of each of the committees of the Board. The President of the University shall be Chairman of the Executive Committee.

### EXECUTIVE COMMITTEE

Mr. Ellison, *Secretary*; Mr. Erwin; Mrs. Evans; Mr. Glover;  
Mr. McKelway; Mr. Tuckerman

### COMMITTEE ON EDUCATIONAL POLICY

Mr. Wetmore, *Chairman*; Mr. Grosvenor; Mr. Hoover; Mr. Howard;  
Dr. White

### COMMITTEE ON ENDOWMENT FUNDS

Mr. Aspinwall, *Chairman*; Mr. Howard; Mrs. Strong

### COMMITTEE ON FINANCE

Mr. Erwin, *Chairman*; Mr. Aspinwall; Mr. Lawson

### COMMITTEE ON NOMINATION OF TRUSTEES

Mr. Ellison, *Chairman*; Mr. Grosvenor; Mr. Hoover; Mr. McKelway

### COMMITTEE ON HONORS

Mr. Grosvenor, *Chairman*; Mr. Briggs; Mr. Cummings; Mr. Glover;  
Mr. Tuckerman

### COMMITTEE ON ALUMNI RELATIONS

Mr. Davis, *Chairman*; Mrs. Evans; Mr. Owen; Mr. Wetmore;  
Dr. White

### COMMITTEE ON UNIVERSITY LIBRARIES AND MUSEUMS

Mr. Briggs, *Chairman*; Mr. Cummings; Mr. Lawson; Mr. Wetmore;  
Dr. White



## COMMITTEE ON LEGAL AFFAIRS

Mr. Cummings, *Chairman*; Mr. Brookes; Mr. Ellison; Mr. Hays;  
Mr. Howard

## COMMITTEE ON BUILDINGS AND LANDS

Mr. Lawson, *Chairman*; Vice-President Grant, *Secretary*;  
Mr. Glover; Mr. Tuckerman

## COMMITTEE ON PERSONNEL

Mr. Wilson, *Chairman*; Mr. Erwin; Mrs. Evans; Mr. Freer;  
Mr. Grosvenor

## COMMITTEE ON EXTRA-CURRICULAR ACTIVITIES

Mr. Brookes, *Chairman*; Mr. Freer; Mr. Hays; Mr. Owen;  
Mr. Tuckerman

## COMMITTEE ON PUBLIC RELATIONS

Mr. Freer, *Chairman*; Vice-President Grant, *Secretary*; Mrs. Evans;  
Mr. McKelway; Mr. Wetmore



## OFFICERS OF ADMINISTRATION

### THE UNIVERSITY

- Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Ulysses S. Grant, 3d, B.S., *Graduate United States Engineers School,*  
*Vice-President*  
Harold Griffith Sutton, M.S., *Director of Admissions*  
Fred Everett Nessell, A.B., *Registrar; Secretary of the Faculties*  
John Russell Mason, B.S. in L.S., A.M., *Librarian; Curator of Art*  
Myrna Pauline Sedgwick, A.B., *Administrative Secretary*  
Henry William Herzog, B.S., *Comptroller*  
Donald David Blanchard, B.C.E., *Business Manager*  
Claud Max Farrington, A.M., *Director of Activities for Men*  
Virginia Randolph Kirkbride, A.M., *Director of Activities for Women*  
Alan Thomas Deibert, A.M., *Adviser to Students from Foreign Coun-*  
*tries*  
Mitchell Dreese, Ph.D., *Dean of the Summer Sessions*  
Daniel LeRay Borden, A.M., M.D., *Director of Health Administration*  
Ruth Harriet Atwell, A.M., *Director of Physical Education for Women*  
Lester Allan Smith, A.M., *Director of Alumni Relations*  
John Rust Busick, A.B., *Director of Public Relations*  
Don Carlos Faith, A.M., *Director of Veterans Education*  
Benjamin Douglass Van Evera, Ph.D., *Coordinator of Scientific Activ-*  
*ities*  
Burnice Herman Jarman, A.M., Ed.D., *Special Assistant to the President*

### THE COLLEGES, SCHOOLS, AND DIVISIONS

- Myron Law Koenig, Ph.D., *Dean of the Junior College*  
Henry Grattan Doyle, A.M., LL.D., Litt.D., *Dean of Columbian College*  
Robert Whitney Bolwell, Ph.D., *Chairman of the Graduate Council*  
Walter Andrew Bloedorn, A.M., M.D., Sc.D., *Dean of the School of*  
*Medicine*  
Oswald Symister Colclough, B.S., LL.B., LL.D., *Dean of the Law School*  
Frederick Morris Feiker, B.S. in E.E., D.Eng., *Dean of the School of*  
*Engineering*  
Charles Watson Bliven, M.S., *Dean of the School of Pharmacy*  
James Harold Fox, A.M., Ed.D., *Dean of the School of Education*  
Arthur Edward Burns, Ph.D., *Dean of the School of Government*  
Elmer Louis Kayser, Ph.D., LL.D., *Dean of the Division of University*  
*Students; University Marshal*



Warren Reed West, Ph.D., *Dean of the Division of Special Students*  
 William Lewis Turner, A.M., *Assistant Dean of the Junior College*  
 Katharine Rogers Adams, Ph.D., *Assistant Dean in the Junior College*  
 George Martin Koehl, A.M., *Assistant Dean in the Junior College*  
 Carr Bartleson Lavell, A.M., *Assistant Dean in the Junior College*  
 Calvin Darlington Linton, Ph.D., *Assistant Dean of Columbian College*  
 Carl Hugo Walther, B.E., M.C.E., *Assistant Dean of the School of Engineering*



## THE ACADEMIC COUNCIL

### THE UNIVERSITY

The President of the University  
The Director of Admissions  
The Registrar  
The Librarian  
The Administrative Secretary

### THE GRADUATE COUNCIL

The Chairman of the Council

Florence Marie Mears Fred Salisbury Tupper

### THE JUNIOR COLLEGE

The Dean of the College

Ira Bowers Hansen Charles William Cole

### COLUMBIAN COLLEGE

The Dean of the College

Edward Henry Sehart Charles Edward Gauss

### THE SCHOOL OF MEDICINE

The Dean of the School

Paul Kenneth Smith Angus MacIvor Griffin

### THE LAW SCHOOL

The Dean of the School

William Thomas Fryer John Patrick Burke

### THE SCHOOL OF ENGINEERING

The Dean of the School

Norman Bruce Ames Carl Hugo Walther



## THE SCHOOL OF PHARMACY

The Dean of the School

## THE SCHOOL OF EDUCATION

The Dean of the School

William Henry Myers

Burnice Herman Jarman

## THE SCHOOL OF GOVERNMENT

The Dean of the School

John Withrow Brewer

Howard Maxwell Merriman

## THE DIVISION OF UNIVERSITY STUDENTS

The Dean of the Division

## THE DIVISION OF SPECIAL STUDENTS

The Dean of the Division

## THE SUMMER SESSIONS

The Dean of the Summer Sessions



## STANDING COMMITTEES OF THE FACULTY

### COMMITTEE ON EDUCATIONAL POLICY

The President of the University, *Chairman*  
The Dean of the Junior College  
The Dean of Columbian College  
The Chairman of the Graduate Council  
The Dean of the School of Medicine  
The Dean of the Law School  
The Dean of the School of Engineering  
The Dean of the School of Pharmacy  
The Dean of the School of Education  
The Dean of the School of Government  
The Dean of the Division of University Students  
The Dean of the Division of Special Students  
The Dean of the Summer Sessions  
The Administrative Secretary

### COMMITTEE ON ADMISSION AND ADVANCED STANDING

Harold Griffith Sutton, *Chairman*  
Francis Edgar Johnston      Carville Dickinson Benson

### COMMITTEE ON LIBRARY

Fred Salisbury Tupper, *Chairman*  
William Thomas Fryer      Louis Clark Keating  
Charles Rudolph Naeser      Thomas Martin Peery

### COMMITTEE ON PUBLIC CEREMONIES AND ASSEMBLIES

Elmer Louis Kayser, *University Marshal; Chairman*  
Frank Mark Weida      Carl Hugo Walther  
Ira Bowers Hansen      Charles William Cole  
Burnice Herman Jarman      Fred Everett Nessell  
Donald David Blanchard

### COMMITTEE ON RESEARCH

Robert Whitney Bolwell, *Chairman*  
Edward Henry Sehr      Chester Elwood Leese  
Paul William Bowman      Donald Stevenson Watson



## COMMITTEE ON STUDENT LOANS AND SCHOLARSHIPS

Warren Reed West, *Chairman*  
 Burnice Herman Jarman Virginia Randolph Kirkbride  
 Henry William Herzog Martin Steele Day

## COMMITTEE ON OFFICE ADMINISTRATIVE POLICY

Myrna Pauline Sedgwick, *Chairman*  
 Harold Griffith Sutton Henry William Herzog  
 Fred Everett Nessell Donald David Blanchard

## COMMITTEE ON INTERCOLLEGIATE ATHLETICS

Burnice Herman Jarman, *Chairman*  
 Mitchell Dreese Ralph Dale Kennedy  
 Claud Max Farrington

## COMMITTEE ON SCHEDULE OF CLASSES

Samuel Nathaniel Wrenn, *Chairman*  
 Benjamin Carpenter Cruickshanks John Withrow Brewer

## COMMITTEES ON STUDENT RELATIONSHIPS

## COMMITTEE ON STUDENT LIFE

Burnice Herman Jarman, *Chairman*  
 Claud Max Farrington Virginia Randolph Kirkbride  
 Marjorie Tate James Harold Coberly  
 Six Student Members

## COMMITTEE ON FORENSICS AND DRAMATICS

Lubin Poe Leggette, *Chairman*  
 Elizabeth Burtner Edwin Lockwood Stevens

## COMMITTEE ON MUSICAL ORGANIZATIONS

Chester Elwood Leese, *Chairman*  
 John Russell Mason Gretchen Louisa Rogers

## COMMITTEE ON PUBLICATIONS

Calvin Darlington Linton, *Chairman*  
 Elbridge Colby Henry William Herzog  
 Margaret Davis (Alumna) William Ellenberger (Alumnus)  
 Two Student Members



## EMERITUS FACULTY

- |  |   |
|--|---|
| PAUL BARTSCH, Ph.D., Sc.D.<br><i>Professor Emeritus of Zoology</i>                         | "Lebanon"<br>Lorton, Va.                  |
| RAY SMITH BASSLER, Ph.D., Sc.D.<br><i>Professor Emeritus of Geology</i>                    | 6704 5th St.                              |
| GEORGE MORTON CHURCHILL, Ph.D.<br><i>Professor Emeritus of English History</i>             | 5601 River Rd.                            |
| WALTER COLLINS CLEPHANE, LL.M., LL.D.<br><i>Professor Emeritus of Law</i>                  | 6000 Connecticut Ave.<br>Chevy Chase, Md. |
| ANNA PEARL COOPER, A.M.<br><i>Professor Emeritus of English</i>                            | 1028 Connecticut Ave.                     |
| WILLIAM CULLEN FRENCH, Ph.D.<br><i>Professor Emeritus of Education in Residence</i>        | Gaithersburg, Md.                         |
| ROBERT FISKE GRIGGS, Ph.D.,<br><i>Professor Emeritus of Botany</i>                         | 207 Alden Rd.<br>Carnegie, Pa.            |
| GILBERT LEWIS HALL, A.B., LL.B.<br><i>Professor Emeritus of Law</i>                        | 1208 N. Wayne St.<br>Arlington, Va.       |
| GEORGE NEELY HENNING, A.M., Litt.D.<br><i>Professor Emeritus of Romance Languages</i>      | 3720 McKinley St.                         |
| GEORGE BAIN JENKINS, M.D.<br><i>Professor Emeritus of Anatomy</i>                          | 5339 42d St.                              |
| JOHN WILMER LATIMER, LL.B.<br><i>Professor Emeritus of Law</i>                             | 14 Newlands St.<br>Chevy Chase, Md.       |
| COLIN MACKENZIE MACKALL, Ph.D.<br><i>Professor Emeritus of Chemistry in Residence</i>      | 3700 Massachusetts Ave.                   |
| WILLIAM JOHNSTON MALLORY, A.M., M.D.<br><i>Professor Emeritus of Medicine</i>              | Lovettsville, Va.                         |
| JAMES FARNANDIS MITCHELL, A.B., M.D.<br><i>Professor Emeritus of Clinical Surgery</i>      | 1344 19th St.                             |
| WALTER LEWIS MOLL, A.B., LL.B., S.J.D.<br><i>Professor Emeritus of Law</i>                 | Valparaiso University<br>Valparaiso, Ind. |
| EDWARD ELLIOTT RICHARDSON, M.D.<br>Th.D., Ph.D.<br><i>Professor Emeritus of Philosophy</i> | 3214 10th Pl. SE.                         |
| GEORGE BYRON ROTH, A.B., M.D.<br><i>Professor Emeritus of Pharmacology</i>                 | 3814 T St.                                |
| ALFRED FRANCIS WILLIAM SCHMIDT, A.M.<br><i>Professor Emeritus of Library Science</i>       | 35 Bryant St.                             |



CHARLES SIDNEY SMITH, Ph.D.  
*Professor Emeritus of Classical Languages*

10358 Ashton Dr.  
 Los Angeles, Calif.

HECTOR GALLOWAY SPAULDING, B.S., LL.B.,  
 S.J.D.

1423 Madison St.

*Professor Emeritus of Law*

WENDELL PHILLIPS STAFFORD, A.M., LL.B.,  
 LL.D., Litt.D.

1661 Crescent Pl.

*Professor Emeritus of Law*



## THE FACULTY AND STAFF OF INSTRUCTION \*

THEODORE JUDSON ABERNETHY, B.S., M.D. <i>Assistant Clinical Professor of Medicine</i>	3030 44th St. Rolling Valley Vienna, Va.
EDWARD CAMPION ACHESON, Ph.D. <i>Associate Professor of Finance</i>	242 N. Granada St. Arlington, Va.
CAROLINE LANDER ADAMS, Ph.D. <i>Lecturer in Botany</i>	1335 H St.
PAUL CHARLES ADKINS, A.B., M.D. <i>Instructor in Anatomy</i>	518 Cumberland Ave. Somerset, Md.
ERRETT CYRIL ALBRITTON, A.B., M.D. <i>Fry Professor of Physiology</i>	830 Buchanan St. NE.
JOHN GAGE ALLEE, Jr., A.M. <i>Assistant Professor of English</i>	5124 45th St.
ANTONIO ALONSO, A.M. <i>Associate Professor of Spanish</i>	1307 N. Pierce St. Arlington, Va.
EDWARD ALPEN Ph.D. <i>Assistant Professor of Pharmacology</i>	1323 20th St. S. Arlington, Va.
LOUIS KATZ ALPERT, B.S., M.D. <i>Adjunct Clinical Professor of Medicine</i>	2120 16th St.
SEYMOUR ALPERT, A.B., M.D. <i>Assistant Professor of Anesthesiology</i>	6524 1st St.
HENRY FRED ALVES, A.M. <i>Professorial Lecturer in Education</i>	1762 N. Troy St. Arlington, Va.
JAMES FRANCIS AMBURY, B.S., M.D. <i>Clinical Instructor in Medicine</i>	8 Westwood Dr. Westmoreland Hills, Md.
NORMAN BRUCE AMES, M.S., E.E., LL.B. <i>Professor of Electrical Engineering</i>	1717 Poplar Lane
HARRY FORD ANDERSON, M.D. <i>Professor of Dermatology and Syphilology</i>	1901 Wyoming Ave.
WILLIAM STATON ANDERSON, A.B., M.D. <i>Clinical Professor of Pediatrics</i>	2223 H St.
WARREN ANDREW, Ph.D., M.D. <i>Professor of Anatomy</i>	3629 Jenifer St.
JEROME STRAUSS ANTEL, Jr., B.S. in E.E. <i>Assistant Professor of Electrical Engineering</i>	2638 N. Florida St. Arlington, Va.
WALTER LOUIS ASLING, A.M. <i>Associate in Physics</i>	

\* The University Faculty is composed of the President of the University, the Director of Admissions, the Registrar (who shall act as Secretary of the University Faculty), the Librarian, the Administrative Secretary, the Comptroller, the Business Manager, the Director of Health Administration, the Superintendent of the Hospital, and the membership of the several school and college faculties.



- |  |  |
|--|--|
| RUTH HARRIET ATWELL, A.M.<br><i>Professor of Physical Education for Women;<br/>Director of Women's Athletics</i> | 4268 N. Vacation Lane<br>Arlington, Va.    |
| JUNE ELIZABETH AYERS, A.M.<br><i>Associate in Secretarial Studies</i>  | 13 Riggs Rd. NE.                           |
| FRANK SOLOMON BACON, B.S., M.D.<br><i>Clinical Instructor in Medicine</i>  | 4828 Rodman St.                            |
| WILLIAM ELDRIDGE BAGEANT, M.D.<br><i>Clinical Instructor in Anesthesiology</i>                                   | 3754 Jocelyn St.                           |
| JENNINGS BAILEY, JR., LL.B.<br><i>Professorial Lecturer in Law</i>   | Route 1<br>Rockville, Md.                  |
| WALTER HALL BAILEY, A.M.<br><i>Assistant Professor of Geography</i>  | 2029 G St.                                 |
| WILLIAM OTIS BAILEY, JR., M.D.<br><i>Clinical Instructor in Medicine</i>   | University Hospital                        |
| STANLEY SAMUEL BAITZ, LL.B.<br><i>Lecturer in Journalism</i>   | 627 Farragut St.                           |
| ARNOLD KENT BALLS, PH.D.<br><i>Professorial Lecturer in Biochemistry</i>   | 36 El Camino Real<br>Berkeley, Calif.      |
| GORDON BARNEWALL, M.B.A.<br><i>Assistant Professor of Business Administration</i>                                | 2029 G St.                                 |
| ROBERT HENRY BARTER, M.D.<br><i>Associate Professor of Obstetrics and<br/>Gynecology</i>                         | 3647 Minnesota Ave. SE.                    |
| JEANNE CECILE BATEMAN, A.B., M.D.<br><i>Clinical Instructor in Medicine</i>                                      | 1229 37th St.                              |
| HARRY CLARK BATES, B.S., M.D.<br><i>Clinical Instructor in Medicine</i>  | 5921 Brook Dr.<br>Falls Church, Va.        |
| EMIL HERBERT BAUERSFELD, A.B., M.D.<br><i>Clinical Instructor in Medicine</i>                                    | 4353 Warren St.                            |
| RALPH GREGORY BEACHLEY, M.D., DR. P.H.<br><i>Adjunct Professor of Public Health Practice</i>                     | 3119 17th St. N.<br>Arlington, Va.         |
| OTHO THOMPSON BEALL, JR., A.M.<br><i>Instructor in English Composition</i>                                       | Young Hope Farm<br>Upper Marlboro, Md.     |
| JOHN WALTER BEARDSLEE III, A.B., B.D.<br><i>Assistant Professor of Religion</i>                                  | 6710 46th St.<br>Chevy Chase, Md.          |
| EDWARD JAMES BEATTIE, JR., M.D.<br><i>Assistant Professor of Surgery</i>   | 2226 Washington Ave.<br>Silver Spring, Md. |
| VIRGINIA PATTERSON BEELAR, A.B., M.D.<br><i>Clinical Instructor in Medicine</i>                                  | 5047 Sedgwick St.                          |
| JOSEPH BEINSTEIN, A.B., M.D.<br><i>Clinical Instructor in Medicine</i>   | 4307 35th St. S.<br>Fairlington, Va.       |
| RUTH BOSCHWITZ BENEDICT, M.D.<br><i>Clinical Instructor in Medicine</i>  | 4935 Massachusetts Ave.                    |



- CARVILLE DICKINSON BENSON, A.B., LL.B.,  
S.J.D.  
*Professor of Law* 3176 18th St. N.  
Arlington, Va.
- CARL BERG, M.D.  
*Assistant Clinical Professor of Orthopedic Surgery* 3805 Kanawha St.
- SIDNEY BERMAN, B.S., M.D.  
*Assistant Clinical Professor of Psychiatry* 2723 Connecticut Ave.
- BERNARD BERNSTEIN, B.S., B.M.E.  
*Lecturer in Mechanical Engineering* 4105 4th St. SE.
- SOLOMON RODNEY BERSACK, M.D.  
*Associate in Radiology* 2702 Wisconsin Ave.
- LEE SHEWARD BIELSKI, A.M.  
*Instructor in Speech* 1569 Mt. Eagle Pl.  
Alexandria, Va.
- CATHARINE BIRCH, A.B., M.D.  
*Clinical Instructor in Oto-rhino-laryngology* 3032 R St.
- ROLAND ESSIG BIEREN, M.D.  
*Clinical Instructor in Obstetrics and Gynecology* 1115 Aronow Dr.  
Falls Church, Va.
- CHARLES EDWARD BISH, A.M., Ed.D.  
*Professorial Lecturer in Education* 14 Duvall Dr.  
Westmoreland Hills, Md.
- BRIAN BLADES, A.B., M.D.  
*Professor of Surgery* 117 Albemarle St.  
Westmoreland Hills, Md.
- CHARLES WATSON BLIVEN, M.S.  
*Professor of Pharmacy; Dean of the School of Pharmacy* 812 Heron Dr.  
Silver Spring, Md.
- WALTER ANDREW BLOEDORN, A.M., M.D.,  
Sc.D.  
*Professor of Medicine; Dean of the School of Medicine; Medical Director of the University Hospital* 4617 Hawthorne Lane
- LESTER SYLVAN BLUMENTHAL, A.B., M.D.,  
M.S. in Med.  
*Clinical Instructor in Medicine* 1601 Argonne Pl.
- HAROLD JEROME BOBYS, A.B., C.P.A.  
*Lecturer on Pharmaceutical Administration* 4106 Oakridge Lane  
Chevy Chase, Md.
- STERLING BOCKOVEN, M.D.  
*Associate in Ophthalmology* 1752 Massachusetts Ave.
- ROBERT WHITNEY BOLWELL, Ph.D.  
*Professor of American Literature; Chairman of the Graduate Council* Southport  
Silver Spring, Md.
- DANIEL LERAY BORDEN, A.M., M.D.  
*Clinical Professor of Surgery; Director of Health Administration; University Surgeon* 1835 I St.
- FRANK SPAULDING BORDEN, B.C.E.  
*Lecturer in Civil Engineering* 3611 Chesapeake St.
- PAUL WILLIAM BOWMAN, Ph.D.  
*Professor of Biology* 3114 5th St. N.  
Arlington, Va.



JAMES IRVING BOYD, M.D. <i>Lecturer in Medicine</i>	8200 Marlboro Pike SE.
ORTON WELLS BOYD, A.M., C.P.A. <i>Professorial Lecturer in Accounting</i>	610 Rolling Rd. Chevy Chase, Md.
THOMAS BRADLEY, A.B., M.D. <i>Clinical Instructor in Surgery</i>	1633 29th St.
RALPH BRADY, B.S. IN E.E. <i>Lecturer in Electrical Engineering</i>	409 B St. NE.
ANDREW JOSEPH BRENNAN, M.D. <i>Clinical Instructor in Medicine</i>	7725 Aberdeen Rd. Bethesda, Md.
CARLTON ERNEST BRETT, A.M. <i>Instructor in English Composition</i>	5122 11th St. S. Arlington, Va.
JOHN WITHROW BREWER, PH.D. <i>Professor of International Law</i>	3000 39th St.
ROBERT LEE BRICKHOUSE, B.S., M.D., <i>Clinical Instructor in Medicine</i>	4913 Bayard Blvd. Crestwood, Md.
CRENSHAW DOUGLAS BRIGGS, B.S., M.D. <i>Clinical Instructor in Surgery</i>	2613 Dumbarton Ave.
WILLIAM PAUL BRIGGS, M.S., Sc.D. <i>Professorial Lecturer in Pharmacy</i>	6600 7th St.
ALBERT SEYMOUR BRIGHT, M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	1726 I St.
CHARLES KESTNER BRIGHTBILL, M.B.A. <i>Lecturer in Physical Education</i>	5924 Johnson Ave. Bethesda, Md.
ALFRED BRIGULIO, M.D. <i>Clinical Instructor in Medicine; Associate University Physician</i>	8409 16th St. Silver Spring, Md.
WARREN DANIEL BRILL, B.S., M.D. <i>Clinical Instructor in Medicine</i>	1221 Missouri Ave.
JOHN FREDERICK BROUGHER, A.M., Ed.D. <i>Lecturer in Education</i>	5804 11th St. N. Arlington, Va.
BROOKS GIDEON BROWN, B.S., M.D. <i>Clinical Instructor in Surgery</i>	1524 East West Hgwy. Silver Spring, Md.
HALLA BROWN, M.D. <i>Clinical Instructor in Medicine</i>	387 37th Pl. SE.
RADFORD BROWN, M.D. <i>Clinical Professor of Obstetrics and Gynecology</i>	3514 Williamsburg Lane
THOMAS BENJAMIN BROWN, PH.D. <i>Professor of Physics</i>	2810 23d St. N. Arlington, Va.
THOMAS McPHERSON BROWN, A.B., M.D. <i>Professor of Medicine</i>	814 26th Pl. S. Arlington, Va.
JAMES LEONARD BUCKLER, A.B. <i>Lecturer in Accounting</i>	2618 N. Quantico St. Arlington, Va.
JOSÉ SILVADO BUENO, A.M. <i>Associate in Portuguese</i>	1512 Longfellow St. Hyattsville, Md.



JACQUELINE CHEVALLAZ BUHRMAN, A.M. <i>Assistant Professor of French</i>	1415 S. George Mason Dr. Arlington, Va.
LOYD BYRON BURK, JR., M.D. <i>Clinical Instructor in Surgery</i>	3104 Russell Rd. Alexandria, Va.
JOHN PATRICK BURKE, A.B., LL.B. <i>Associate Professor of Law</i>	6027 Ridge Dr. Brookmont, Md.
ARTHUR EDWARD BURNS, Ph.D. <i>Professor of Economics; Dean of the School of Government</i>	6521 32d St.
JAMES THEODORE BURNS, M.D. <i>Clinical Instructor in Medicine</i>	308 Windsor St. Silver Spring, Md.
ELIZABETH BURTNER, A.M. <i>Associate Professor of Physical Education for Women</i>	1514 17th St.
FRANK ROBERT BYRNE, M.B.A., LL.M., C.P.A. <i>Lecturer in Accounting</i>	3620 16th St.
EDWARD ALEXANDER CAFRITZ, M.D. <i>Associate in Surgery</i>	1835 I St.
PAUL CALABRISI, A.M. <i>Associate Professor of Anatomy</i>	257 N. Thomas St. Arlington, Va.
WILLARD EDMUND CALDWELL, Ph.D. <i>Assistant Professor of Psychology</i>	1010 16th St.
ROBERT DALE CAMPBELL, Ph.D. <i>Associate Professor of Geography</i>	1201 S. Barton St. Arlington, Va.
JOHN EDWARD CANTLON, B.S. <i>Assistant Professor of Botany</i>	2029 G St.
WILLIAM SUTTON CARLEY, M.S. in E.E. <i>Associate Professor of Electrical Engineering</i>	5522 Greenway Dr.
RICHARD BERNARD CASTELL, A.B., M.D. <i>Associate in Medicine; Associate University Physician</i>	Mayflower Hotel
WILLIAM PAXSON CHALFANT, JR., M.D. <i>Clinical Instructor in Ophthalmology</i>	1915 16th St.
FREDERIC DUNBAR CHAPMAN, A.B., M.D., C.M. <i>Clinical Instructor in Medicine</i>	1614 44th St.
WILLIAM WILEY CHASE, A.B., M.D. <i>Clinical Instructor in Surgery</i>	1813 Parkside Dr.
WALTER LYNN CHENEY, Ph.D. <i>Professor of Physics</i>	3509 McKinley St.
PAUL CHODOFF, A.B., M.D. <i>Associate in Neurology</i>	4704 Blagden Terrace
ROGER MORRISON CHOISSER, B.S., M.D. <i>Professor of Pathology</i>	4645 Hawthorne Lane



- ARTHUR CASTNER CHRISTMAN, JR., M.S. 3500 39th St.  
*Instructor in Physics*
- HUGH GAMBEL CLARK, A.B., M.D. 2865 S. Buchanan St.  
*Clinical Instructor in Pediatrics* Fairlington, Va.
- CHARLES SEYMOUR COAKLEY, M.D. 1761 Crestwood Dr.  
*Associate Professor of Anesthesiology*
- ROBERT NORWOOD COALE, B.S., M.D. 5707 Wisconsin Ave.  
*Clinical Instructor in Medicine* Chevy Chase, Md.
- JAMES HAROLD COBERLY, Ph.D. 1819 G St.  
*Assistant Professor of American Literature*
- LAURENCE LEE COCKERILLE, M.D. 4709 49th St.  
*Assistant Clinical Professor of Obstetrics and Gynecology*
- FREDERICK WARREN COE, B.S., M.D. 7301 Overhill Dr.  
*Clinical Instructor in Medicine* Bethesda, Md.
- MAYNARD IRVING COHEN, A.B., M.D. 2440 16th St.  
*Clinical Instructor in Pediatrics*
- NICHOLAS TREPHON COKENIAS, A.M. 6616 14th St.  
*Instructor in German*
- ELBRIDGE COLBY, Ph.D. 4560 Indian Rock Terrace  
*Professor of Journalism*
- OSWALD SYMISTER COLCLOUGH, B.S., LL.B., LL.D. 3342 Stuyvesant Pl.  
*Professor of Law; Dean of the Law School*
- CHARLES WILLIAM COLE, Ph.D. 2747 Ordway St.  
*Associate Professor of American Literature*
- HAZEN EUGENE COLE, B.S., M.D. 639 E. Capitol St.  
*Clinical Instructor in Surgery*
- CHARLES SAGER COLLIER, A.B., LL.B., S.J.D. 212 Rosemary St.  
*Professor of Law* Chevy Chase, Md.
- GERHARD COLM, Dr. rer. pol. 1615 N. Lexington St.  
*Professorial Lecturer in Economics* Arlington, Va.
- PETER DIACOURIS COMANDURAS, M.D., M.S. 4427 S. Four Mile Run Dr.  
*Associate Clinical Professor of Medicine* Arlington, Va.
- JOSEPH FRANCIS CONLON, D.D.S. 4708 Cortland Rd.  
*Clinical Instructor in Dental Surgery* Chevy Chase, Md.
- JOSEPH AUGUSTINE CONNOR, JR., M.D. 1906 Amherst Pl.  
MAJOR, UNITED STATES ARMY, Hyattsville, Md.  
MEDICAL CORPS
- Professor of Military Science and Tactics
- ROBERT CARTER COOK 1507 M St.  
*Lecturer on Genetics*
- ROBERT MCKINNEY COOPER, Ph.M., J.D. Stoney Creek  
*Associate Professor of Law* Woodrow Ave.  
Bethesda, Md.



- JEAN McQUISTON COOVER, A.M. IN Ed. 2008 G St.  
*Instructor in Physics*
- JAMES CHRISTOPHER CORLISS, A.M. 2737 Devonshire Pl.  
*Adjunct Professor of Inter-American Economics*
- IVOR CORNMANN, Ph.D. 1335 H St.  
*Assistant Research Professor of Anatomy*
- IRENE CORNWELL, Ph.D. 2126 Connecticut Ave.  
*Associate Professor of French*
- THOMAS EWING COTNER, Ph.D. 1412 N. Abingdon St.  
*Lecturer in Political Science*  
Arlington, Va.
- RONALD ATMORE COX, A.B., M.D. 4408 Edmonds St.  
*Professor of Ophthalmology; Associate University Physician*
- LOUIS ALECK CRAIG, JR., A.B., M.D., 3133 Connecticut Ave.  
*Clinical Instructor in Medicine*
- GEORGE BOWDOIN CRAIGHILL, A.B., LL.B., 2803 P St.  
*Adjunct Professor of Law*
- NORRIS INGERSOLL CRANDALL, M.Arch. 268 Madison Lane  
*Professor of Art*  
Baileys Cross Roads  
Alexandria, Va.
- NORMAN PATTERSON CRAWFORD, A.M. 2029 G St.  
*Assistant Professor of Speech*
- GEORGE WILLIAM CRESWELL, A.B., M.D. 1630 Jonquil St.  
*Assistant Clinical Professor of Dermatology and Syphilology*
- JEREMIAH KEITH CROMER, M.D. 3036 Cambridge Pl.  
*Clinical Instructor in Obstetrics and Gynecology*
- BENJAMIN CARPENTER CRUICKSHANKS, 5733 4th St.  
B.S. IN M.E.  
*Professor of Mechanical Engineering*
- LEON RICHARD CULBERTSON, B.S., M.D. 1801 K St.  
*Clinical Instructor in Urology*
- WILLIAM GREEN CUSHARD, M.D. 703 E. Leland St.  
*Associate in Psychiatry*  
Chevy Chase, Md.
- HUGH HACKLAND DARBY, Ph.D. Route 5  
*Research Professor of Biophysics*  
Mt. Airy, Md.
- HENRY LAURAN DARNER, A.B., M.D. 1028 Connecticut Ave.  
*Clinical Professor of Obstetrics and Gynecology*
- CARL CALVIN DAUER, A.B., M.D., M.P.H. 3515 Livingston St.  
*Assistant Clinical Professor of Medicine*
- DAVID DAVIS, A.B., M.D. 4857 Colorado Ave.  
*Associate in Oto-rhino-laryngology; Associate University Physician*
- EDWARD FRENCH DAVIS, M.S. 2262 N. Wakefield St.  
*Associate in Mechanical Engineering*  
Arlington, Va.



- EDWIN WALLACE DAVIS, PH.D.  
*Lecturer in Psychology* 5315 Moorland Lane  
Bethesda, Md.
- WILLIAM JOSEPH GRAHAM DAVIS, A.B.,  
M.D. 927 17th St.  
*Clinical Instructor in Ophthalmology*
- JAMES FORRESTER DAVISON, A.B., LL.B.,  
LL.M., S.J.D. 49 Observatory Circle  
*Professor of Law*
- RODERIC HOLLETT DAVISON, PH.D. 1523 26th St.  
*Associate Professor of European History*
- MARTIN STEELE DAY, PH.D. 3130 O St.  
*Assistant Professor of English*
- BENJAMIN FRANKLIN DEAN, JR., M.S., M.D. 3221 Patterson St.  
*Assistant Clinical Professor of Surgery*
- VINCENT JAMES DEANGELIS, B.S. IN P.E.,  
A.M. IN ED. 2406 N. George Mason Dr.  
*Assistant Professor of Physical Education for* Arlington, Va.  
*Men*
- ALAN THOMAS DEIBERT, A.M. 2124 I St.  
*Professor of Romance Languages; Adviser to*  
*Students from Foreign Countries*
- FRANK LANDT DENNIS, A.B., LL.B. 3125 Nebraska Ave.  
*Lecturer in Journalism*
- HERBERT HAROLD DIAMOND, M.D. 7416 Alaska Ave.  
*Clinical Instructor in Pediatrics*
- PAUL FREDERICK DICKENS, M.D. 4930 Sedgwick St.  
*Clinical Professor of Medicine*
- WILLIAM THOMAS DICKINSON, M.S. IN 2873 S. Buchanan St.  
E.E. Arlington, Va.  
*Assistant Professor of Electrical Engineering*
- WILLIAM WEBSTER DIEHL, PH.D. 1512 N. McKinley Rd.  
*Adjunct Professor of Mycology* Arlington, Va.
- JAMES CARLTON DOCKERAY, PH.D. 4120 Woodberry St.  
*Professorial Lecturer in Business Administration* University Park, Md.
- SAMUEL MAYER DODEK, A.M., M.D. 2930 Woodland Dr.  
*Assistant Clinical Professor of Obstetrics and*  
*Gynecology*
- HENRY GRATTAN DOYLE, A.M., LL.D., 5500 33d St.  
LITT.D.  
*Professor of Romance Languages; Dean of*  
*Columbian College*
- MITCHELL DREESE, PH.D. 4136 41st St. N.  
*Professor of Educational Psychology; Dean of the* Arlington, Va.  
*Summer Sessions*
- JAMES SPENCER DRYDEN, M.D. 5412 Roosevelt St.  
*Clinical Instructor in Ophthalmology* Bethesda, Md.



- |  |  |
|--|--|
| JOHN WILLIAM DuCHEZ, M.D.<br><i>Clinical Instructor in Medicine</i>                                  | 110 35th St. SE.                           |
| JAMES ALBERT DUSBABEK, M.D.<br><i>Associate in Obstetrics and Gynecology</i>                         | 1844 Randolph St.                          |
| ADDISON McGUIRE DUVAL, M.D.<br><i>Clinical Professor of Psychiatry</i>                               | St. Elizabeths Hospital                    |
| HARRY EAGLE, A.B., M.D.<br><i>Adjunct Clinical Professor of Medicine</i>                             | 121 Bradley Lane<br>Chevy Chase, Md.       |
| WILFRED WALTER EASTMAN, M.D.<br><i>Clinical Instructor in Anatomy</i>                                | 210 Tulip Ave.<br>Takoma Park, Md.         |
| HENRY DUNLOP ECKER, B.S., M.D.<br><i>Clinical Instructor in Medicine</i>                             | 1725 N St.                                 |
| JUSTIN LINCOLN EDGERTON, A.B., LL.B.<br><i>Professorial Lecturer in Law; Clerk of the Moot Court</i> | 2104 Ross Rd.<br>Silver Spring, Md.        |
| FRANKLIN JOHN EHLERT<br><i>Lecturer in Journalism</i>  | 10031 Tenbrook Dr.<br>Silver Spring, Md.   |
| CAREY DeWITT ELDRIDGE, Ph.D.<br><i>Assistant Professor of Romance Languages</i>                      | 302 Marvin Rd.<br>Silver Spring, Md.       |
| WATSON WILLIAM ELDRIDGE, Jr., M.D.<br><i>Associate in Medicine</i>                                   | St. Elizabeths Hospital                    |
| WILLIAM LEIGH ELLIS, A.B., LL.B., LL.M.<br><i>Lecturer in Law</i>                                    | 19 Carvel Rd.<br>Westmoreland Hills, Md.   |
| WALTER BYRON EMERY, LL.B., Ph.D.<br><i>Lecturer in Speech</i>  | 4407 Elm St.<br>Chevy Chase, Md.           |
| OTTO ANDERSON ENGH, A.B., M.D.<br><i>Clinical Instructor in Surgery</i>                              | 3214 Old Dominion Blvd.<br>Alexandria, Va. |
| GROVER WILLIAM ENSLEY, M.B.A., Ph.D.<br><i>Lecturer in Economics</i>                                 | 5122 24th St. N.<br>Arlington, Va.         |
| JULIUS ROBERT EPSTEIN, M.D.<br><i>Clinical Instructor in Obstetrics and Gynecology</i>               | 4721 Colorado Ave.                         |
| CLAYTON BERNARD ETHRIDGE, M.D.<br><i>Clinical Professor of Medicine</i>                              | 915 19th St.                               |
| JOHN McCALLUM EVANS, A.B., M.D.<br><i>Assistant Clinical Professor of Medicine</i>                   | 8722 Colesville Rd.<br>Silver Spring, Md.  |
| RAYMOND PUGH EYMAN, C.E.<br><i>Associate Professor of Civil Engineering</i>                          | 4701 Connecticut Ave.                      |
| WALTER DAVID FACKLER<br><i>Instructor in Business Administration</i>                                 | 1812 19th St.                              |
| DON CARLOS FAITH, A.M.<br><i>Associate in Psychology</i>   | 3816 49th St.                              |
| JOHN FARAGO, Ph.D.<br><i>Lecturer in Chemistry</i>   | 6321 Sligo Pkwy.<br>Green Meadows, Md.     |



- JOSEPH FRANCIS FAZEKAS, B.S., M.D.  
*Adjunct Clinical Professor of Medicine*
- HENRY LEON FEFFER, A.B., M.D.  
*Clinical Instructor in Orthopedic Surgery*
- JAMES JOSEPH FEFFER, A.B., M.D.  
*Associate in Medicine*
- FREDERICK MORRIS FEIKER, B.S. IN E.E.,  
D.ENG.  
*Professor of Engineering Administration; Dean  
of the School of Engineering*
- RICHARD LEE FENTON, B.M.E.  
*Lecturer in Mechanical Engineering*
- EDWARD EGNER FERGUSON, M.D.  
*Clinical Instructor in Urology*
- RUSSELL FESSENDEN, PH.D.  
*Lecturer in English Composition*
- \*JOHN THEODORE FEY, LL.B., M.B.A.  
*Associate Professor of Law*
- MURRAY FINKELSTEIN, PH.D.  
*Assistant Professor of Pharmacology*
- AUBREY DAVID FISCHER, M.D.  
*Associate in Oto-rhino-laryngology*
- DEWITT FISHER, A.M.  
*Associate in Physics*
- EDWIN MEDBERRY FITCH, PH.D.  
*Lecturer in Economics*
- LAWRENCE DANIEL FOLKEMER, PH.D.  
*Associate Professor of Religion; Director of  
Religious Activities*
- THEODORE CLAREMONT CHEN FONG, M.D.  
*Associate in Dermatology and Syphilology*
- RALPH WALDO FOSTER, A.M.  
*Lecturer in Physical Education*
- BERNARD HAYMAN FOX, PH.D.  
*Assistant Professor of Psychology*
- JAMES HAROLD FOX, A.M., Ed.D.  
*Professor of Education; Dean of the School of  
Education*
- CARSON GRAY FRAILEY, A.B., LL.B.  
*Lecturer on Pharmaceutical Law*
- WILLIAM FRANK, M.D.  
*Clinical Instructor in Medicine*
- MAURICE FRANKS, M.D.  
*Clinical Instructor in Medicine*
- 1 Stockton Rd.  
Silver Spring, Md.  
2025 I St.
- 1711 Rhode Island Ave.
- 1235 34th St.
- 1118 Meurilee Lane  
Silver Spring, Md.  
1801 I St.
- 2933 S. Columbus St.  
Arlington, Va.
- 516 Washington St.  
Cumberland, Md.
- 2806 Naylor Rd. SE.
- 2737 Devonshire Pl.
- 4811 S. 31st St.  
Arlington, Va.
- Route 1  
McLean, Va.
- 9605 Howard Ave.  
Bethesda, Md.
- 1630 Kalmia Rd.
- 602 Park Lane  
Bethesda, Md.
- 318 Livingston Terrace SE.
- 4301 Jenifer St.
- 5047 Glenbrook Terrace
- 2723 Nicholson St.,  
Hyattsville, Md.
- 1105 Trenton Pl. SE.

\* On leave of absence 1950-51.



CLARENCE KENDALL FRASER, Ph.B., M.D. <i>Associate in Obstetrics and Gynecology</i>	5040 Sedgwick St.
MOSES FREEDMAN, B.S. IN ENG. <i>Lecturer in Civil Engineering</i>	216 Baden St. Silver Spring, Md.
JOHN LEIPER FREEMAN, JR., A.M. <i>Instructor in Political Science</i>	4635-A S. 36th St. Arlington, Va.
WALTER FREEMAN, Ph.D., M.D. <i>Professor of Neurology</i>	4501 Linnean Ave.
WILLIAM THOMAS FRYER, A.B., LL.B., J.D. <i>Professor of Law</i>	7007 Clarendon Rd. Bethesda, Md.
MARVIN FUCHS, B.S., M.D. <i>Clinical Instructor in Medicine</i>	1601 Argonne Pl.
GEORGE ANTONY GAMOW, PHYSICS D. <i>Professor of Theoretical Physics</i>	19 Thoreau Dr. Bethesda, Md.
JAMES QUINCY GANT, JR., M.S., M.D. <i>Associate in Dermatology and Syphilology</i>	6729 2d St.
RHODES CARL GARBY, A.B., M.D. <i>Instructor in Surgery</i>	1335 H St.
JANE GASS, M.S. <i>Assistant Professor of Pharmacology and Pharmacognosy</i>	3717 Livingston St.
CHARLES EDWARD GAUSS, Mus.B., Ph.D. <i>Elton Professor of Philosophy</i>	423 S. Lee St. Alexandria, Va.
HAROLD LORAN GEISERT, Ph.D. <i>Professor of Sociology</i>	2115 Pennsylvania Ave.
LEON GERBER, M.D. <i>Clinical Instructor in Surgery</i>	900 17th St.
WALTER HENRY GERWIG, JR., A.B., M.D. <i>Associate in Surgery</i>	3263 Beech St.
WILLIAM TRAVIS GIBB, JR., A.B., M.D. <i>Assistant Clinical Professor of Medicine</i>	2002 R St.
SAM THOMPSON GIBSON, B.S., M.D. <i>Associate in Medicine</i>	5803 Anniston Rd. Bethesda, Md.
DOROTHY MORROW GILFORD, M.S. <i>Lecturer in Statistics</i>	1007 Seaton Lane Falls Church, Va.
EUGENE SOLOMEN GLADSDEN, B.S., M.D. <i>Clinical Instructor in Medicine</i>	5917 14th St.
HERBERT DUDLEY GLICK, B.M., M.D. <i>Clinical Instructor in Pediatrics</i>	8011 Eastern Ave. Silver Spring, Md.
JOHN CLIFFORD GOFF, B.M.E. <i>Associate in Mechanical Engineering</i>	1352 Taylor St.
REUBEN GOODMAN, M.D. <i>Clinical Instructor in Dermatology and Syphilology</i>	1746 K St.



HELEN BARTON GOODWIN, A.M.  
*Lecturer in Education*

ERNEST ALVA GOULD, M.D.  
*Clinical Instructor in Surgery*

WOOD GRAY, Ph.D.  
*Professor of American History*

SALVATORE JOSEPH GRECO, Ph.D.  
*Assistant Professor of Pharmacy*

CHARLES EDWARD GREELEY, B.S. IN M.E.  
*Associate Professor of Mechanical Engineering*

KATHERINE VIRGINIA GREENE, A.M.  
*Instructor in Physiology*

BRUCE DOUGLAS GREENSHIELDS, C.E., Ph.D.  
*Professor of Civil Engineering*

ANGUS MACIVOR GRIFFIN, Ph.D.  
*Professor of Bacteriology*

WILLIAM LESTER GRIFFIN, A.B., LL.B.,  
LL.M.  
*Assistant Professor of Law*

ROBERT HENRY GROH, B.S., M.D.  
*Assistant Clinical Professor of Neurology*

MABEL HARLAKENDEN GROSVENOR, A.B.,  
M.D.  
*Assistant Clinical Professor of Pediatrics*

FRED LATIMER HADSEL, Ph.D.  
*Lecturer in Political Science*

GILBERT PIERCE HAIGHT, JR., Ph.D.  
*Assistant Professor of Chemistry*

CUSTIS LEE HALL, M.D.  
*Clinical Professor of Surgery*

HARVEY PORTER HALL, A.M.  
*Lecturer in Political Science*

JAMES HERRICK HALL, A.M.  
*Lecturer in Education*

ROSCOE WILLIS HALL, Ph.B., M.D.  
*Clinical Professor of Psychiatry*

CHARLES ROBERT LEE HALLEY, A.B., M.D.  
*Clinical Professor of Medicine*

\*RAY LAFOREST HAMON, Ph.D.  
*Professorial Lecturer in Education*

PAUL EDWARD HANCHETT, Ph.D.  
*Assistant Professor of Economics*

RAYMOND GEORGE HANKEN, B.S. IN P.E.  
*Assistant Professor of Physical Education for Men*

124 E. Thornapple St.  
Chevy Chase, Md.

7603 Wildwood Dr.  
Takoma Park, Md.  
3422 Reservoir Rd.

820 S. Florida St.  
Arlington, Va.

4538 34th St. S.  
Arlington, Va.

625 25th St. S.  
Arlington, Va.

2127 California St.

4103 Davis Pl.

109 E. Columbia St.  
Falls Church, Va.

3215 Rittenhouse St.

2203 Wyoming Ave.

123 S. Pitt St.  
Alexandria, Va.

2807 Cheverly Ave.  
Cheverly, Md.

3920 Harrison St.

215 Buffalo Ave.  
Takoma Park, Md.

4704 46th St.

St. Elizabeths Hospital

18 E. Bradley Lane  
Chevy Chase, Md.

4009 Clagett Rd.  
College Heights, Md.

1267 New Hampshire Ave.

6421 Cedar Dr.  
Falls Church, Va.

\* On leave of absence 1950-51.



- IRA BOWERS HANSEN, Ph.D.  
*Professor of Zoology* 7812 Custer Rd.  
Bethesda, Md.
- BERNARD LAURISTON HARDIN, Jr., A.B., M.D.  
*Associate in Medicine* 1329 Connecticut Ave.
- JAMES WILLARD HARKNESS, B.S., Ed.M.  
*Assistant Professor of Chemistry* Route 2, Box 214  
Alexandria, Va.
- ROBERT HOWE HARMON, A.B., M.D.  
*Associate University Physician* 3133 Connecticut Ave.
- ROBERT EARL HARPER, A.B.  
*Lecturer in Journalism* 4709 Warren St.
- JEROME BLAINE HARRELL, M.D.  
*Assistant Clinical Professor of Surgery* 1845 Taylor St.
- FOREST KLAIRE HARRIS, Ph.D.  
*Professorial Lecturer in Electrical Engineering* 2124 Tunlaw Rd.
- HELEN TAYLOR HARRIS, A.M.  
*Associate in Physical Education for Women* 8818 Ridge Rd.  
Bethesda, Md.
- CLARENCE RICHARD HARTMAN, A.B., M.D.  
*Assistant Clinical Professor of Medicine* 1026 Knoll Dr.  
Falls Church, Va.
- THOMAS LEES HARTMAN, A.M., M.D.  
*Clinical Instructor in Medicine* 1834 I St.
- RICHARD CATLIN HASKETT, A.M.  
*Assistant Professor of American History* Washington Grove, Md.
- WEBB EDWARD HAYMAKER, M.S., M.D.  
*Professorial Lecturer in Anatomy* 7206 Blair Rd.
- WILLIAM GAMMON HAYWARD, B.S. in C.E.  
*Lecturer in Civil Engineering* 536 Quintana Pl.
- CANNON CHILES HEARNE, A.M.  
*Lecturer in Education* 409 N. Irving St.  
Arlington, Va.
- WILLIAM FRANKLIN HECKERT, B.S.  
*Instructor in Physics* 2029 G St.
- GEORGE FRANCIS HENIGAN, Jr., Ph.M.  
*Associate Professor of Speech* 4119 36th St. S.  
Arlington, Va.
- VINCENT HARRY HENNESSY, B.C.E.  
*Associate in Civil Engineering* 2453 Tunlaw Rd.
- CONDER CAYWOOD HENRY, A.B., LL.B.  
*Adjunct Professor of Law* 4322 Argyle Terrace
- PHILIP FIELD HERRICK, A.B., LL.B., LL.M.  
*Professorial Lecturer in Law* 517 Tennessee Ave.  
Alexandria, Va.
- ROY HERTZ, Ph.D., M.D.  
*Assistant Clinical Professor of Medicine* 4612 S. Chelsea Lane  
Bethesda, Md.
- HENRY WILLIAM HERZOG, B.S.  
*Comptroller* 22 Duvall Dr.  
Westmoreland Hills, Md.
- JULIA ELIZABETH HICKS, A.M.  
*Instructor in Romance Languages* 601 18th St.



- GEORGE ALFRED HIGGINS, B.S., M.D.  
*Clinical Instructor in Surgery* 2720 Wisconsin Ave.
- JANE FROST HILDER, A.M.  
*Lecturer in Education; Director of Reading Clinic* 3809 Ingomar St.
- ROBERT PELLEY HILL, B.S., M.D.  
*Assistant Professor of Pathology* 2223 H St.
- CLAYTON HOWARD HIXSON, M.D.  
*Associate in Obstetrics and Gynecology* 4700 Quebec St.
- T. WILEY HODGES, A.B., M.D.  
*Clinical Instructor in Orthopedic Surgery* 4201 Oakridge Lane  
Chevy Chase, Md.
- PEARL HOLLY, M.S., M.D.  
*Associate in Medicine* 2704 36th Pl.
- WILLIAM BULTMAN HOLTON, Ph.D.  
*Professorial Lecturer in Chemistry* 4820 Drummond Ave.  
Chevy Chase, Md.
- BERNARD LEONARD HORECKER, Ph.D.  
*Professorial Lecturer on Enzymes* 4810 North Lane  
Bethesda, Md.
- ALEC HORWITZ, M.S., M.D.  
*Associate Clinical Professor of Surgery* 2719 Brandywine St.
- AVERETT HOWARD, A.M.  
*Associate Professor of English Composition* 1 Scott Circle
- WILLIAM ALLEN HOWARD, A.B., M.D.  
*Associate in Pediatrics* 3900 Cathedral Ave.
- JOHN DECATOR HOYLE, B.S., M.D.  
*Clinical Instructor in Surgery* 1019 10th St.  
Alexandria, Va.
- \*HENRY FURNESS HUBBARD, Ph.D.  
*Adjunct Professor of Psychology* 6318 32d St.
- THELMA HUNT, Ph.D., M.D.  
*Professor of Psychology* 3700 Massachusetts Ave.
- PAUL LOUIS ILLG, A.M.  
*Lecturer in Biology* 6201 Walhonding Rd.  
Glen Echo Heights, Md.
- MARJORIE IONTA, B.S.  
*Assistant in Physical Medicine* 2223 H St.
- VINCENT MICHAEL IOVINE, B.S., M.D.  
*Assistant Clinical Professor of Surgery* 2500 Q St.
- GEORGE WASHINGTON IRVING, JR., Ph.D.  
*Professorial Lecturer on Proteins* 4901 Lackawanna St.  
Berwyn, Md.
- MARGARET IVES, Ph.D.  
*Lecturer in Psychology* 302 Rucker Pl.  
Alexandria, Va.
- CAROLINE JACKSON, A.M., M.D.  
*Clinical Instructor in Obstetrics and Gynecology* 1150 Connecticut Ave.
- JOHN WINGFIELD JACKSON, B.S., LL.B.  
*Adjunct Professor of Law* 4844 N. Rock Spring Rd.  
Arlington, Va.
- RICHARD LEE JACKSON, M.D.  
*Clinical Instructor in Surgery* 2913 29th St.

\* On leave of absence 1950-51.



- DOROTHY STEINLE JAEGER-LEE, M.D.  
*Assistant Clinical Professor of Pediatrics* 425 Greenbrier Dr.  
Silver Spring, Md.
- RUSSEL JON JANSEN, M.D.  
*Associate in Obstetrics and Gynecology* 3015 Ellicott St.
- BURNICE HERMAN JARMAN, A.M., Ed.D.  
*Professor of Education; Special Assistant to the President* 1802 N. Danville St.  
Arlington, Va.
- WILLIAM DABNEY JARMAN, B.S., M.D.  
*Clinical Instructor in Urology* 1710 35th St.
- GEORGE JASZI, Ph.D.  
*Lecturer in Economics* 6210 Wagner Lane
- EDGAR PLEASANT JAYNE, Ph.D.  
*Assistant Professor of Anatomy* 2029 G St.
- WILLIAM HERNDON JENKINS, M.D.  
*Clinical Professor of Oto-rhino-laryngology* 1150 Connecticut Ave.
- EDWARD CLIFFORD JENNINGS, B.S., M.D.  
*Clinical Instructor in Oto-rhino-laryngology* 5002 Fort Sumner Dr.
- JOE LEE JESSUP, M.B.A.  
*Associate Professor of Business Administration* 704 N. Wayne St.  
Arlington, Va.
- WILLIAM FRANKLIN JEWELL III, M.S.  
*Assistant Professor of Geography* 2141 I St.
- ARLIN REX JOHNSON, Ph.D.  
*Professorial Lecturer on Marketing* 1707 N. Greenbrier St.  
Arlington, Va.
- ARTHUR FREDERICK JOHNSON, M.E., Ph.D.  
*Professor of Mechanical Engineering* 1111 S. Oakcrest Rd.  
Arlington, Va.
- EVERETT HERSCHEL JOHNSON, Ph.D.  
*Associate Professor of Statistics* 3939 Pennsylvania Ave. SE.
- HOWARD ODIN JOHNSON, A.M., Ed.D.  
*Lecturer in Education* 720 Woodlawn Ave.  
Falls Church, Va.
- JOSEPH BUEOL JOHNSON, A.M., Ed.D.  
*Lecturer in Education* 2107 N. Scott St.  
Arlington, Va.
- FRANCIS EDGAR JOHNSTON, Ph.D.  
*Professor of Mathematics* 1835 K St.
- WILLIAM CRANE JOHNSTONE, JR., Ph.D.  
*Professorial Lecturer in Political Science* 3065 University Terrace
- BENJAMIN CALLOWAY JONES, JR., M.D.  
*Associate in Medicine* 405 Green St.  
Alexandria, Va.
- CHARLES WILSON JONES, A.B., M.D.  
*Clinical Instructor in Medicine* 1629 Columbia Rd.
- RUTH ELSIE JONES, A.M.  
*Instructor in English Composition* 8002 Blair Mill Dr.  
Silver Spring, Md.
- WILLIAM McPHEETERS JONES, B.S., C.P.A.  
*Lecturer in Accounting* 3031 S. Columbus St.  
Arlington, Va.
- WILLIAM CLAYTON JUSTICE, B.S. IN ENG.  
*Lecturer in Mechanical Engineering* 9909 Edgehill Lane  
Silver Spring, Md.



- KENNETH CASPER KATES, Ph.D.  
*Professorial Lecturer in Zoology*
- SOL KATZ, B.S., M.D.  
*Adjunct Clinical Professor of Medicine*
- SOLOMON KATZENELBOGEN, M.D.  
*Clinical Professor of Psychiatry*
- MORTON SELWYN KAUFMAN, A.B., M.D.  
*Clinical Instructor in Obstetrics and Gynecology*
- ELMER LOUIS KAYSER, Ph.D., LL.D.  
*Professor of European History; Dean of the Division of University Students; University Marshal*
- LOUIS CLARK KEATING, Ph.D.  
*Professor of Romance Languages*
- EDWARD FREDERICK KELLEY, M.S., A.E.E.  
*Lecturer in Mechanical Engineering*
- JOHN WILLIAM KEMBLE, A.B., M.D.  
*Clinical Instructor in Neurology*
- ISABELLE VIRGINIA KENDIG, Ph.D.  
*Associate in Psychiatry; Lecturer in Psychology*
- JOHN ALEXANDER KENDRICK, A.B., LL.B.  
*Assistant Clerk of the Moot Court*
- MARVIN HAYNE KENDRICK, A.B., M.D.  
*Clinical Instructor in Surgery*
- RALPH DALE KENNEDY, Ph.D.  
*Professor of Accounting*
- ALBERT PRENTICE KENYON, A.M.  
*Associate in Physics*
- IRVIN KERLAN, B.S., M.D., C.P.H.  
*Clinical Instructor in Medicine*
- JAMES JOSEPH KERLEY, JR., A.B. in C.E.  
*Assistant Professor of Civil Engineering*
- ISRAEL KESSLER, M.S., M.D.  
*Clinical Instructor in Medicine*
- MARK MICHAEL KILEY, A.M. in Eng.  
*Instructor in Civil Engineering*
- HAYDEN KIRBY-SMITH, B.S., M.D.  
*Assistant Clinical Professor of Dermatology and Syphilology*
- JAMES ROBERT KIRKLAND, A.B., LL.B., LL.M.  
*Adjunct Professor of Law*
- FRANCES KIRKPATRICK, A.M.  
*Professor of Home Economics*
- STANLEY WILLIAM KIRSTEIN, M.D.  
*Clinical Instructor in Medicine*
- 7102 Rhode Island Ave.  
College Park, Md.
- 917 Ridge Rd.  
Route 1, Annandale, Va.
- 5904 Connecticut Ave.
- 4700 Blagden Ave.
- 2921 34th St.
- 4414 Dittmar Rd.  
Arlington, Va.
- P. O. Box 562  
Alexandria, Va.
- Quarters 135  
Army Medical Center  
St. Elizabeths Hospital
- 1730 Connecticut Ave.
- 1028 Valley Dr.  
Alexandria, Va.
- 2528 N. Buchanan St.  
Arlington, Va.
- 3672 Gunston Rd.  
Alexandria, Va.
- 1919 19th St.
- 1707 Kilbourne Pl.
- 721 Decatur St.
- 6804 Exeter Rd.  
Bethesda, Md.
- 1791 Crestwood Dr.
- 1519 Underwood St.
- 2150 Pennsylvania Ave.
- 1835 I St.



- |  |   |
|--|---|
| ALBERT DAVID KISTIN, A.M., M.D.<br><i>Associate in Medicine</i>  | 2650 Wisconsin Ave.                     |
| MORRIS KLEINERMAN, Ch.D., M.B.<br><i>Assistant Clinical Professor of Psychiatry</i>                          | 2025 I St.                              |
| DONALD CHENOWETH KLINE, B.Arch.<br><i>Associate Professor of Art</i>   | 5805 Chevy Chase Pkwy.                  |
| CALVIN TREXLER KLOPP, A.B., M.D.<br><i>Assistant Clinical Professor of Surgery</i>                           | 4621 Glenbrook Pkwy.<br>Bethesda, Md.   |
| ALVIN KNUDSON, B.S., M.D.<br><i>Associate in Physical Medicine</i>   | 4104 S. 36th St.<br>Fairlington, Va.    |
| GEORGE MARTIN KOEHL, A.M.<br><i>Associate Professor of Physics; Assistant Dean in<br/>the Junior College</i> | 515 Mansfield Rd.<br>Silver Spring, Md. |
| MYRON LAW KOENIG, Ph.D.<br><i>Professor of American History; Dean of the<br/>Junior College</i>              | 1818 N. Lincoln St.<br>Arlington, Va.   |
| FREDERICK HENRY KOHLOSS, B.S. in M.E.,<br>LL.B.<br><i>Assistant Professor of Mechanical Engineering</i>      | 5001 Wakefield Rd.<br>Green Acres, Md.  |
| JACOB KOTZ, M.D.<br><i>Clinical Professor of Obstetrics and Gynecology</i>                                   | 2824 Connecticut Ave.                   |
| WOLFGANG HERBERT KRAUS, Dr. Jur.,<br>S.J.D.<br><i>Associate Professor of Political Science</i>               | 3101 Highland Pl.                       |
| HENRY CHARLES KREBS, A.B.<br><i>Instructor in Speech</i>   | 3734 Windom Pl.                         |
| HAROLD WALTER KROGH, D.D.S.<br><i>Associate in Dental Surgery</i>  | 1835 I St.                              |
| JOSEPH HENRY KRUPA, M.S.<br><i>Associate Professor of Physical Education for<br/>Men</i>                     | 2148 O St.                              |
| PHILIP KRUPEN, A.M.<br><i>Associate in Physics</i>   | 1211 Raum St. NE.                       |
| SOLOMON KULLBACK, Ph.D.<br><i>Lecturer in Statistics</i>   | 1259 Van Buren St.                      |
| FREDERICK CHARLES KURTZ, M.B.A.<br><i>Instructor in Accounting</i>   | 3420 25th St. SE.                       |
| WILLIAM THURSTON LADY, M.D.<br><i>Clinical Instructor in Obstetrics and Gynecology</i>                       | 800 Alabama Ave. SE.                    |
| FRANCIS LINCOLN LAMBERT, B.S.<br><i>Instructor in Zoology</i>  | 3402 Garfield St.                       |
| ALFRED ERNEST LAMPE, B.S.<br><i>Professorial Lecturer on Insurance</i>                                       | 5505 Charlote Rd.<br>Bethesda, Md.      |



- DAVID BULKLEY LANGMUIR, Ph.D.  
*Professorial Lecturer in Physics*
- CARL LEONARD LARSON, B.S., M.D.  
*Assistant Clinical Professor of Medicine*
- JOHN FRANCIS LATIMER, Ph.D.  
*Associate Professor of Classical Languages and Literatures*
- JOHN WILMER LATIMER, Jr., M.D.  
*Clinical Instructor in Medicine*
- HENRY PRATHER LAUGHLIN, B.S., M.D.  
*Assistant Clinical Professor of Psychiatry*
- CARR BARTLESON LAVELL, A.M.  
*Assistant Professor of Sociology; Assistant Dean in the Junior College*
- CHARLES EDWARD LAW, M.D.  
*Clinical Instructor in Medicine*
- HELEN BENNETT LAWRENCE, A.M.  
*Associate Professor of Physical Education for Women*
- BOLITHA JAMES LAWS, LL.B., LL.M.  
*Adjunct Professor of Law*
- ALFRED HENRY LAWTON, M.D., Ph.D.  
*Assistant Clinical Professor of Medicine*
- CLARENCE DANIEL LEATHERMAN, Ph.D.  
*Professorial Lecturer in Psychology*
- JEROME ADDISON LEE, B.S.  
*Lecturer in Electrical Engineering*
- JOHN GORDON LEE, A.B., M.D., C.M.,  
MED. SC.D.  
*Adjunct Clinical Professor of Surgery*
- CHESTER ELWOOD LEESE, Ph.D.  
*Professor of Physiology*
- OSCAR LEGAULT, A.B., M.D.  
*Clinical Instructor in Neurology*
- \* LUBIN POE LEGGETTE, A.M.  
*Associate Professor of Speech*
- WOLFRAM KARL LEGNER, Ph.D.  
*Associate Professor of German*
- RICHARD MARACHE LEIGHTON, Ph.D.  
*Lecturer in History*
- THOMAS MILES LEONARD, Ph.B., M.D.  
*Clinical Instructor in Obstetrics and Gynecology*
- Route 3  
Fairfax, Va.
- 2 West Dr.  
Bethesda, Md.
- 3601 Connecticut Ave.
- 1835 I St.
- 6627 East Ave.  
Chevy Chase, Md.
- 4304 16th St. S.  
Arlington, Va.
- 3348 Valley Dr.  
Alexandria, Va.
- 4268 N. Vacation Lane  
Arlington, Va.
- 7 Oxford St.  
Chevy Chase, Md.
- 5901 Anniston Rd.  
Bethesda, Md.
- 3175 17th St. N.  
Arlington, Va.
- 3804 Kanawha St.
- 203 Timberwood Ave.  
Silver Spring, Md.
- 704 Butternut St.
- 1728 Massachusetts Ave.
- 1505 Timber Lane  
Falls Church, Va.
- 409 N. George Mason Dr.  
Arlington, Va.
- 4900 Russell Ave.
- 2501 33d St. SE.

\* On leave of absence 1950-51.



- GORDON SPARKS LETTERMAN, A.B., B.S., M.D. 2501 Southern Ave.  
*Clinical Instructor in Surgery*
- EDWARD LEWIS, M.D. 2820 Connecticut Ave.  
*Clinical Professor of Pediatrics*
- EDWIN LEWIS, M.B.A. 3500 14th St.  
*Lecturer in Accounting*
- CLYDE LINDLEY, A.M. 3053 S. Columbus St.  
*Lecturer in Psychology*  
Fairlington, Va.
- CALVIN DARLINGTON LINTON, Ph.D. 4711 17th St. N.  
*Professor of English Literature; Assistant Dean of*  
*Columbian College*  
Arlington, Va.
- RUTH COYNER LITTLE, Ph.D. 6 Wessex Rd.  
*Professorial Lecturer in Education*  
Silver Spring, Md.
- JAMES WALLING LONG, M.D. 1821 Q St.  
*Clinical Instructor in Medicine*
- LOUIS LOSS, B.S., LL.B. 10105 McKenney Ave.  
*Professorial Lecturer in Law*  
Silver Spring, Md.
- REGINALD SPENCER LOURIE, M.D. 505 W. Thornapple St.  
*Associate in Pediatrics—Psychiatry*  
Chevy Chase, Md.
- VICTOR FREDERICK LUDEWIG, A.B., B.S. 4712 River Rd.  
*Superintendent of the University Hospital*
- CAMILLA PAINTER LUECKE, A.M. 1831 P St. SE.  
*Lecturer in Education*
- FLORENCE MARY LUMSDEN, A.M., Ed.D. 8 Park View Rd.  
*Lecturer in Education*  
Chevy Chase, Md.
- JOHN HUGH LYONS, M.S., M.D. 1325 New Hampshire Ave.  
*Clinical Professor of Surgery*
- ROSS CLAYTON MacCARDLE, Ph.D. 4707 Connecticut Ave.  
*Professorial Lecturer in Anatomy*
- GORDON RHODES MacDONALD, B.S., M.D. 4622 Livingston Rd. SE.  
*Clinical Instructor in Urology*
- SALLY STEELE MacDONALD, A.B., M.D. 4622 Livingston Rd. SE.  
*Associate University Physician*
- FRANK GOODNOW MacMURRAY, A.B., M.D. 2224 Decatur Pl.  
*Clinical Instructor in Medicine*
- PAUL BUDD MAGNUSON, M.D. 3121 O St.  
*Adjunct Clinical Professor of Surgery*
- GEORGE MAKSIM, M.D., M.S. in PED. 4907 Tilden St.  
*Assistant Clinical Professor of Pediatrics*
- BENJAMIN MANCHESTER, M.D. 1701 Varnum St.  
*Assistant Clinical Professor of Medicine*
- EDWARD PERKINS MANGUM, A.M. 2100 I St.  
*Assistant Professor of Speech*



ALLEN DAILEY MANVEL, A.B. <i>Lecturer on Public Administration</i>	6221 Western Ave.
JOHN BAYNE MARBURY, M.D. <i>Clinical Instructor in Medicine</i>	3724 Davenport St.
WILLIAM BERRY MARBURY, M.D. <i>Clinical Professor of Surgery</i>	2238 Q St.
CHARLES LAWRENCE MARKS, A.M. <i>Instructor in Statistics</i>	900 19th St.
ELLIOTT DeJARNETTE MARSHALL, LL.B. <i>Adjunct Professor of Law</i>	Front Royal, Va.
SHIRLEY SUE MARTIN, M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	2120 16th St.
CLOYD HECK MARVIN, Ph.D., LL.D. <i>President of the University</i>	The University
JOHN RUSSELL MASON, B.S. IN L.S., A.M. <i>Librarian; Curator of Art</i>	2017 I St.
JOSEPH MARSHALL MATHIAS, A.B., LL.B. <i>Lecturer in Journalism</i>	7424 Wisconsin Ave. Bethesda, Md.
LOUIS HARKEY MAYO, B.S., LL.B. <i>Assistant Professor of Law; Secretary of the Law School</i>	2029 G St.
WILLIAM GRAY MCCARTEN, M.S. <i>Instructor in Bacteriology</i>	2 Ewing Court Ayr lawn Bethesda, Md.
MURIEL HOPE McCLANAHAN, Ph.D. <i>Assistant Professor of English</i>	2230 California St.
JAMES EDWARD McCORMACK, A.B., M.D. <i>Associate in Medicine</i>	1335 H St.
WILLIAM STANLEY McCUNE, A.B., M.D. <i>Associate Clinical Professor of Surgery</i>	5610 Moorland Lane Bethesda, Md.
JAMES JERRY McFARLAND, Jr., B.S., M.D. <i>Clinical Instructor in Oto-rhino-laryngology</i>	1150 Connecticut Ave.
JASPER WAYNE McFARLAND, B.S., M.D. <i>Clinical Instructor in Physical Medicine</i>	1310 Erskine St. Takoma Park, Md.
JOHN PHILLIP McGOVERN, B.S., M.D. <i>Associate in Pediatrics</i>	Gallinger Hospital
LEWIS WALKER McILHANY, M.S., M.D. <i>Clinical Instructor in Public Health Practice</i>	McLean, Va.
JOHN ALBERT McINTIRE, A.B., LL.B. <i>Professorial Lecturer in Law</i>	17 Carvel Rd. Westmoreland Hills, Md.
PRESTON ALEXANDER McLENDON, B.S. M.D. <i>Professor of Pediatrics</i>	2146 Wyoming Ave.
ELIZABETH ANN McMAHON, A.B. <i>Associate in Secretarial Studies</i>	801 Taylor St.



HENRY JOHN RUSSELL McNITT, B.S. IN MED., M.D. <i>Associate in Obstetrics and Gynecology</i>	418 Willard Ave. Chevy Chase, Md.
FLORENCE MARIE MEARS, Ph.D. <i>Professor of Mathematics</i>	7304 Hampden Lane Bethesda, Md.
ROBERT RANDAL MEIJER, Ph.D. <i>Associate Professor of Physics</i>	1019 21st St. S. Arlington, Va.
ROY MALCOLM MELBOURNE, A.M. <i>Lecturer in Political Science</i>	408 Jackson St. Falls Church, Va.
ROBERTO DANIEL MELÉNDEZ, A.B. <i>Associate in Spanish</i>	405 Delafield Pl.
WILLIAM CAREY MELOY, M.D., M.S. IN MED. <i>Associate in Surgery</i>	4420 Edmunds St.
MAURICE MENSCH, M.D. <i>Clinical Instructor in Medicine</i>	1730 I St.
WILLIAM RAYMOND MERCHANT, A.B., M.D. <i>Clinical Instructor in Medicine</i>	4621 N. 22d Rd. Arlington, Va.
LEROY SORENSON MERRIFIELD, A.B., LL.B., M.P.A. <i>Associate Professor of Law</i>	1422 Martha Custis Dr. Alexandria, Va.
HOWARD MAXWELL MERRIMAN, Ph.D. <i>Professor of American Diplomatic History</i>	1436 36th St.
RUDOLPH MICHEL, M.S. IN M.E. <i>Lecturer in Mechanical Engineering</i>	6518 40th Ave. University Park, Md.
HAAREN ALBERT MIKLOFSKY, B.C.E., M.ENG. <i>Assistant Professor of Civil Engineering</i>	2223 H St.
ALBERT RAYMOND MILLER, JR., A.M. <i>Assistant Professor of Economics</i>	1308 19th St.
ARTHUR SELWYN MILLER, A.B., LL.B. <i>Assistant Professor of Law</i>	2029 G St.
BENJAMIN FRANK MILLER, B.S., CHEM. ENG., M.D. <i>Clinical Professor of Medicine</i>	2101 Constitution Ave.
* FELICIA MARY MILLER, A.M. <i>Instructor in Spanish</i>	2918 18th St.
RALPH BRETNEY MILLER, M.D. <i>Clinical Instructor in Medicine</i>	3825 Woodley Rd.
MARY BARBARA MILLS, Ph.D. <i>Assistant Professor of Biochemistry</i>	4801 Connecticut Ave.
JOHN MINOR, A.B., M.D. <i>Associate in Medicine</i>	2030 R St.
REGINALD HENRY MITCHELL, M.D. <i>Clinical Instructor in Pediatrics</i>	7824 Wisconsin Ave. Bethesda, Md.
DANIEL BRUCE MOFFETT, A.B., M.D. <i>Professor of Oto-rhino-laryngology</i>	4344 Hawthorne St.

\* On leave of absence 1950-51.



- GEORGE EDWARD MONK, A.B., LL.B., LL.M.  
*Professorial Lecturer in Law*
- JOHN JUDSON MONROE, A.M.  
*Associate in English Composition*
- MALCOLM RICHARDSON MOORE, B.E.E.  
*Lecturer in Electrical Engineering*
- ROBERT HAMILTON MOORE, Ph.D.  
*Associate Professor of English Composition*
- CECIL WENTWORTH MORGAN, Ph.D.  
*Professorial Lecturer in Physical Education*
- JAMES WARD MORRIS, A.B.  
*Adjunct Professor of Law*
- WILLIAM ROSS MORRIS, M.D.  
*Associate in Surgery*
- EDITH ELIZABETH MORTENSEN, Ph.D.  
*Associate Professor of Zoology*
- JAMES NORMAN MOSÉL, A.M.  
*Assistant Professor of Psychology*
- ARTHUR JAMES MOUROT, B.S., M.D.  
*Clinical Instructor in Surgery*
- VERA LILLIAN MOWRY, Ph.D.  
*Assistant Professor of English*
- SAM CLARK MUNSON, M.S.  
*Assistant Professor of Biology*
- JAMES OLIVER MURDOCK, Ph.B., LL.B.  
*Professor of Law*
- JAMES PETER MURPHY, B.S., M.D.  
*Associate in Neurological Surgery*
- FRANCIS JAMES MURRAY, A.B., M.D.  
*Clinical Instructor in Medicine*
- FRANK HAMMETT MYERS, LL.B., LL.M.  
*Adjunct Professor of Law*
- WALTER KENDALL MYERS, B.S., M.D.  
*Assistant Clinical Professor of Medicine*
- WILLIAM HENRY MYERS, A.M.  
*Professor of Physical Education for Men*
- CHARLES RUDOLPH NAESER, Ph.D.  
*Professor of Chemistry*
- WALTER LEWIS NALLS, B.S., M.D.  
*Associate in Medicine*
- CARMON ROBERT NAPLES, B.S., M.D.  
*Clinical Instructor in Ophthalmology*
- 10 Franklin St.  
Kensington, Md.
- 3450 39th St.
- Walton Lane  
Annandale, Va.
- 2800-B 16th Rd. S.  
Arlington, Va.
- 4826 28th St. S.  
Arlington, Va.
- Westchester Apts.  
3040 Garrison St.
- 4444 Faraday Pl.
- 3600 Cameron Mills Rd.  
Alexandria, Va.
- 811 Prince St.  
Alexandria, Va.
- 1809 G St.
- 7761 Emerson Rd.  
West Lanham Hills  
Hyattsville, Md.
- 1824 23d St.
- 1911 R St.
- 532 20th St.
- 3754 McKinley St.
- 3011 45th St.
- 315 Whittier St.
- 172 N. Columbus St.  
Arlington, Va.
- 105 N. Alfred St.  
Alexandria, Va.
- 1746 K St.



- CHARLES HENRY NASH, JR., M.D.  
*Clinical Instructor in Obstetrics and Gynecology*
- EDWIN DEFREES NEFF, M.S.  
*Lecturer in Journalism*
- ERWIN ELLIS NELSON, M.D., PH.D.  
*Adjunct Clinical Professor of Pharmacology*
- NELS DAVID NELSON, PH.D.  
*Assistant Professor of Mathematics*
- FRED EVERETT NESSELL, A.B.  
*Registrar; Secretary of the Faculties*
- WILLIAM VANCE NESSLY  
*Lecturer in Journalism*
- JULIUS SALEM NEVIASER, A.B., M.D.  
*Assistant Clinical Professor of Orthopedic Surgery*
- ALVIN LEROY NEWMYER, LL.B.  
*Adjunct Professor of Law*
- JOSEPH NEY, B.S., M.D.  
*Clinical Instructor in Medicine*
- PHYLLIS ANNETTE NICHOLS, A.M.  
*Assistant Professor of English*
- MARGARET MARY NICHOLSON, A.B., M.D.  
*Clinical Professor of Pediatrics*
- ANDREW ANTHONY NILLES, A.B., LL.B.  
*Associate in Speech*
- AARON NIMETZ, A.B., M.D.  
*Assistant Clinical Professor of Pediatrics*
- GEORGE NORDLINGER, A.B., M.D.  
*Associate Clinical Professor of Obstetrics and Gynecology*
- DANIEL REMSEN NORTON, PH.D.  
*Assistant Professor of Chemistry*
- JOEL NORTON NOVICK, M.S., M.D.  
*Clinical Instructor in Oto-rhino-laryngology*
- ROGER O'DONNELL, JR., A.B., M.D.  
*Associate in Obstetrics and Gynecology*
- MONTTELL ERNEST OGDON, PH.D.  
*Professorial Lecturer in Business Administration*
- THOMAS ALVIN O'HALLORAN, B.E.E.  
*Lecturer in Electrical Engineering*
- SIDNEY OLANSKY, B.S., M.D.  
*Clinical Instructor in Medicine*
- SAUL CHESTERFIELD OPPENHEIM, A.M.,  
J.D., S.J.D.  
*Professor of Law*
- 2513 Arundel Rd.  
Mt. Rainier, Md.
- 3723 Holmes Lane  
Alexandria, Va.
- 4422 Dittmar Rd.  
Arlington, Va.
- 1717 19th St.
- 4517 Western Ave.
- 518 Missouri Ave.
- 1918 K St.
- 4000 Cathedral Ave.
- 1104 N. Pitt St.  
Alexandria, Va.
- 5900 Dalecarlia Pl.
- 1000 Maryland Ave. NE
- P.O. Box 530, Route 2  
Alexandria, Va.
- 5501 16th St.
- 1735 New Hampshire Ave.
- 1005 Navahoe Dr.  
Silver Spring, Md.
- 1726 I St.
- 5265 Watson St.
- 501 Dorchester Rd.  
Falls Church, Va.
- 223 N. Little Falls Rd.  
Falls Church, Va.
- 2810 S. 9th St.  
Arlington, Va.
- 3029 O St.



- CHARLES WILLIAM ORDMAN, A.B., M.D. 1726 M St.  
*Associate in Medicine*
- HERMAN ISRAEL ORENTLICHER, A.B., LL.B., 5917 14th St.  
*Associate Professor of Law*
- GILBERT OTTENBERG, A.M., M.D. 1415 Holly St.  
*Associate in Urology*
- WINFRED OVERHOLSER, A.B., M.D., Sc.D. St. Elizabeths Hospital  
*Professor of Psychiatry*
- \*RICHARD NORMAN OWENS, Ph.D., C.P.A. 3113 Key Blvd.  
*Professor of Business Administration* Arlington, Va.
- EDWIN PEARSON PARKER III, B.S., M.D. 1619 30th St.  
*Clinical Instructor in Medicine*
- HOWARD POPE PARKER, A.B., M.D. 4919 Palisades Lane  
*Associate in Obstetrics and Gynecology*
- KATHERINE ELIZABETH PARKER, A.M., "Lebanon"  
M.D. Lorton, Va.  
*Clinical Instructor in Obstetrics and Gynecology*
- JOHN PARKS, M.S., M.D. 4410 Dexter St.  
*Professor of Obstetrics and Gynecology*
- LELAND WILBUR PARR, Ph.D. 4447 Volta Pl.  
*Professor of Bacteriology*
- JOHN HOWELL PEACOCK, B.S., M.D. 1650 Foxhall Rd.  
*Clinical Instructor in Pediatrics*
- JED WILLIAMS PEARSON, Jr., A.B., M.D. 1571 44th St.  
*Clinical Instructor in Obstetrics and Gynecology*
- THOMAS MARTIN PEERY, A.B., M.D. 226 Belle Haven Rd.  
*Professor of Pathology; Director of Postgraduate Alexandria, Va.*  
*Instruction; Director of Laboratories in University Hospital*
- THOMAS JOSEPH PEKIN, M.D. 2650 Wisconsin Ave.  
*Clinical Instructor in Medicine*
- THEODORE PETER PERROS, M.S. 5825 3d Pl.  
*Instructor in Chemistry*
- LEONARD THEODORE PETERSON, A.B. 3268 Arcadia Pl.  
B.S., M.D.  
*Assistant Clinical Professor of Orthopedic Surgery*
- \*CALVIN WEIR PETTIT, Ph.M. Apt. 32  
*Assistant Professor of Speech* 2760 Devonshire Pl.
- BERNATH EUGENE PHILLIPS, Ph.D. 5823 14th St.  
*Professorial Lecturer in Physical Education*



- |  |  |
|--|--|
| EWING LAKIN PHILLIPS, Ph.D.<br><i>Assistant Professor of Psychology</i>                    | 5703 Jamestown Rd.<br>Hyattsville, Md.   |
| GEORGE PIDA, B.E.E.<br><i>Associate in Electrical Engineering</i>                          | 2004 S. Randolph St.<br>Arlington, Va.   |
| JOSEPH MICHAEL PISANI, A.B., M.D.<br><i>Clinical Instructor in Medicine</i>                | 4310 12th Rd. S.<br>Arlington, Va.       |
| LOIS IRENE PLATT, A.B., M.D.<br><i>Clinical Instructor in Surgery</i>                      | 1900 F St.                               |
| GORDON VANDERLIP POTTER, A.M.<br><i>Associate in English Composition</i>                   | 20 N. Thomas St.<br>Arlington, Va.       |
| ANDREW GABRIEL PRANDONI, B.S., M.D.<br><i>Associate in Medicine</i>                        | 2025 I St.                               |
| KARL RHORER PRICE, A.B., LL.B.<br><i>Professorial Lecturer in Law</i>                      | 809 Great Falls St.<br>Falls Church, Va. |
| NEEL JACK PRICE, B.S., M.D.<br><i>Clinical Instructor in Obstetrics and Gynecology</i>     | 5813 66th Ave.<br>Riverdale, Md.         |
| MAURICE PROTAS, A.B., M.D.<br><i>Associate in Medicine</i>                                 | 4807 Colorado Ave.                       |
| MERLE IRVING PROTZMAN, Ph.D.<br><i>Professor of Romance Languages</i>                      | 2500 S. Eads St.<br>Arlington, Va.       |
| LAWRENCE ELIAS PUTNAM, A.B., M.D.<br><i>Associate in Medicine</i>                          | 4834 MacArthur Blvd.                     |
| PAUL STIRLING PUTZKI, M.D.<br><i>Clinical Professor of Surgery</i>                         | 1835 I St.                               |
| BORIS RABKIN, A.B., M.D.<br><i>Clinical Instructor in Medicine</i>                         | 1200 Lebanon St.<br>Silver Spring, Md.   |
| HERBERT PERCY RAMSEY, A.B., M.D.<br><i>Clinical Professor of Obstetrics and Gynecology</i> | 3000 Tilden St.                          |
| CHARLES RAVITSKY, M.S. in Ed.<br><i>Associate in Physics</i>                               | 1505 Drexel St.<br>Takoma Park, Md.      |
| JOHN ALTON REED, A.B., M.D.<br><i>Assistant Clinical Professor of Medicine</i>             | 1720 Connecticut Ave.                    |
| *JOHN PALMER REESING, Jr., A.M.<br><i>Assistant Professor of English</i>                   | 2413 King St.<br>Alexandria, Va.         |
| WILLIAM JENNINGS REINHART, B.B.A.<br><i>Associate in Physical Education for Men</i>        | 748 S. Barton St.<br>Arlington, Va.      |
| *MADALINE KINTER REMMLEIN, Ph.D., J.D.<br><i>Lecturer in Education</i>                     | 606 Fontaine St.<br>Alexandria, Va.      |
| FREDERICK A. REUTER, M.D.<br><i>Professor of Urology</i>                                   | 5170 Tilden St.                          |

\* On leave of absence 1950-51.



- |  |  |
|--|--|
| JACK JACOB RHEINGOLD, A.B., M.D.<br><i>Clinical Instructor in Medicine</i>               | 1601 Argonne Pl.                           |
| CHARLES SYLVANUS RHYNE, LL.B.<br><i>Professorial Lecturer in Law</i>                     | 5721 32d St.                               |
| DAVID LUCIAN RICE, B.S. IN PHAR.<br><i>Instructor in Hospital Pharmacy</i>               | 4202 N. Henderson Rd.<br>Arlington, Va.    |
| MARION BALLARD RICHMOND, B.S., M.D.<br><i>Clinical Instructor in Neurology</i>           | 5600 26th St. SE.                          |
| DUANE CASE RICHTMEYER, A.B., M.D.<br><i>Clinical Instructor in Surgery</i>               | 4401 Dexter St.                            |
| BARTON WINTERS RICHWINE, M.D.<br><i>Associate in Obstetrics and Gynecology</i>           | 3306 Rittenhouse St.                       |
| ARCH LOCKHART RIDDICK, B.S., M.D.<br><i>Clinical Professor of Surgery</i>                | 2900 Glover Dr.                            |
| FLOYD MILLARD RIDDICK, PH.D.<br><i>Lecturer in Political Science</i>                     | Manassas, Va.                              |
| HUGO VICTOR RIZZOLI, A.B., M.D.<br><i>Clinical Instructor in Neurological Surgery</i>    | 3700 Massachusetts Ave.                    |
| JAMES WILLIS ROBB, A.B.<br><i>Assistant Professor of Romance Languages</i>               | 2029 G St.                                 |
| MARY LOUISE ROBBINS, PH.D.<br><i>Assistant Professor of Bacteriology</i>                 | 4913 Chevy Chase Blvd.<br>Chevy Chase, Md. |
| JOSEPH HYRAM ROE, PH.D.<br><i>Professor of Biochemistry</i>                              | 1352 Jefferson St.                         |
| FLOYD STERLING ROGERS, M.D.<br><i>Clinical Instructor in Obstetrics and Gynecology</i>   | 1150 Connecticut Ave.                      |
| GRETCHEN LOUISA ROGERS, PH.D.<br><i>Associate Professor of German</i>                    | 2212 I St.                                 |
| AUSTIN BERTRAM ROHRBAUGH, JR., M.D.<br><i>Clinical Instructor in Orthopedic Surgery</i>  | 4816 Wellington Dr.<br>Bethesda, Md.       |
| RUFUS MARTIN ROLL, A.B., M.D.<br><i>Clinical Instructor in Obstetrics and Gynecology</i> | 2800 Woodley Rd.                           |
| MONROE JAMES ROMANSKY, A.B., M.D.<br><i>Associate Professor of Medicine</i>              | 6609 32d Pl.                               |
| WALTER JOSEPH ROMEJKO, M.D.<br><i>Clinical Instructor in Ophthalmology</i>               | 4926 Westway Dr.<br>Crestview, Md.         |
| BLAKE SMITH ROOT, A.M., ED.D.<br><i>Associate Professor of Education</i>                 | 412 N. Thomas St.<br>Arlington, Va.        |
| MARY CARMAN ROSE, PH.D.<br><i>Instructor in Philosophy</i>                               | 4434 20th St. N.<br>Arlington, Va.         |
| MORTON HAROLD ROSE, M.D.<br><i>Clinical Instructor in Medicine</i>                       | 4721 Blagden Terrace                       |
| MORRIS HIRSH ROSENBERG, A.B., M.D.<br><i>Clinical Instructor in Medicine</i>             | 9915 Tenbrook Dr.<br>Silver Spring, Md.    |



- LOUIS ROSS, M.D.  
*Clinical Instructor in Medicine* 3923 Massachusetts Ave.
- SYDNEY ROSS, M.D.  
*Clinical Instructor in Pediatrics* 3118 16th St.
- JOHN HOWELL ROWLAND, LL.B.  
*Associate in Physical Education for Men* P.O. Box 326, Route 2  
Fairfax, Va.
- MARSHALL DEGRAFFENRIED RUFFIN,  
B.S., M.D.  
*Assistant Clinical Professor of Psychiatry* 1835 I St.
- RALPH WINDSOR RUFFNER, A.M., Ed.D.  
*Associate Professor of Education* 2033 F St.
- WILLIAM SAMUEL RUMBOUGH, A.M., Ed.D.  
*Lecturer in Education* 3133 Connecticut Ave.
- NANCY RUPP, B.S.  
*Instructor in Physical Education for Women* 2029 G St.
- ALEXANDER LeSUEUR RUSSELL, M.D.  
*Clinical Instructor in Obstetrics and Gynecology* 1726 K St.
- WILLIAM FREDERICK SAGER, Ph.D.  
*Assistant Professor of Chemistry* 166 N. Columbus St.  
Arlington, Va.
- THOMAS STONE SAPPINGTON, A.B., M.D.  
*Clinical Instructor in Medicine* 1103 16th St.
- MARY KATHERINE LAURENCE SARTWELL,  
A.B., M.D.  
*Clinical Instructor in Pediatrics* 1211 Jefferson St.
- LEROY LEE SAWYER, JR., A.B., M.D.  
*Assistant Clinical Professor of Oto-rhino-laryngology* 4911 Quebec St.
- JOHN WATSON SCHERMERHORN, Ph.D.  
*Assistant Professor of Pharmaceutical Chemistry* 841 South Greenbriar St.  
Arlington, Va.
- WILSON EMERSON SCHMIDT, A.M.  
*Instructor in Economics* 2029 G St.
- H. F. ARTHUR SCHOENFELD, A.M.  
*Professorial Lecturer on European Diplomatic History* 3301 36th St.
- HERBERT HERMANN SCHOENFELD, M.D.  
*Associate Clinical Professor of Surgery* 1726 I St.
- CYRIL AUGUSTUS SCHULMAN, M.D.  
*Clinical Instructor in Medicine* 1345 Saratoga Ave. NE.
- ALVIN RAYMOND SCHWAB, B.S., M.S. IN ENG.  
*Lecturer in Civil Engineering* 9110 Bradford Rd.  
Silver Spring, Md.
- RAYMOND SCHWARTZ, A.B., M.D.  
*Clinical Instructor in Medicine* 2805 Lee Blvd.  
Arlington, Va.
- LOUISE PACKER SEAGER  
*Associate in Physical Education for Women* 1532 16th St.
- WILLIAM HENRY SEBRELL, JR., M.D.  
*Professorial Lecturer on Nutrition* 7119 Marion St.  
Bethesda, Md.



- MYRNA PAULINE SEDGWICK, A.B.  
*Administrative Secretary* 2806 36th Pl.
- SAM FOSTER SEELEY, B.S., B.M., M.D.  
*Adjunct Clinical Professor of Surgery* 1307 Dogwood St.
- \*EDWARD HENRY SEHRT, Ph.D.  
*Professor of German* 2811 35th St.
- HYMAN DAVID SHAPIRO, M.D.  
*Associate Clinical Professor of Neurology* 2025 R St.
- GEORGE SHARPE, A.B., M.D.  
*Clinical Instructor in Medicine* 4501 Puller Dr.  
Kensington, Md.
- SAMUEL HAZEN SHEA, M.D.  
*Clinical Instructor in Obstetrics and Gynecology* 5033 Glenbrook Terrace
- HENRY DAVIDSON SHELDON, Ph.D.  
*Lecturer in Sociology* 2821 31st St. S.E.
- LUTHER SHELDON, JR., M.D.  
REAR ADMIRAL, RETIRED, MEDICAL CORPS,  
UNITED STATES NAVY  
*University Physician* 3203 Cleveland Ave.
- ERNEST SEWALL SHEPARD, A.M.  
*Professor of English Literature* 203 Lawton St.  
Falls Church, Va.
- ERNEST ALFRED WATSON SHEPPARD,  
M.D., C.M.  
*Clinical Professor of Ophthalmology* 1801 K St.
- EUGENE HUGHY SHERMAN, SR., B.S.  
*Associate in Physical Education for Men* 3218 Chillum Rd.  
Mt. Rainier, Md.
- DWIGHT EDWARD SHYTLE  
*Lecturer in Electrical Engineering* 609 McNeill Rd.  
Silver Spring, Md.
- SAMUEL ALEXANDER SILK, PHAR.G., M.D.  
*Associate in Psychiatry* St. Elizabeths Hospital
- JOHN WILLIAM SKINNER, A.M.  
*Instructor in Business Administration* 71 Garret Park Rd.  
Kensington, Md.
- RAYMOND STEVENS SMETHURST, B.S., LL.B.  
*Professorial Lecturer in Law* 5042 Lowell St.
- BENJAMIN WILLIAMS SMITH, M.S.  
*Instructor in Biochemistry* 1715 N. Nelson St.  
Arlington, Va.
- KENNETH McLANE SMITH, A.B., M.D.  
*Associate in Medicine* 7308 Newburn Dr.
- LYMAN BRADFORD SMITH, Ph.D.  
*Professorial Lecturer on Taxonomy* 41 W. Washington St.  
Kensington, Md.
- PAUL KENNETH SMITH, Ph.D.  
*Professor of Pharmacology* 4323 Murdock Mill Rd.
- WALDO EDWARD SMITH, B.E., M.S. IN C.E.  
*Professorial Lecturer in Civil Engineering* 3907 Jocelyn St.

\* On sabbatical leave winter term 1950-51.



- CARMEL MIRIAM SNOW, B.S. IN PHAR.  
*Instructor in Hospital Pharmacy* 3828 Florence Dr.  
Alexandria, Va.
- LUTHER HENRY SNYDER, A.B., M.D.  
*Clinical Instructor in Medicine* 3640 Everett St.
- WILLIAM WOODROW STANBRO, M.D.  
*Professor of Radiology* 7806 Tilberry St.  
Bethesda, Md.
- CHARLES BIGELOW STAUFFACHER, A.M.  
*Lecturer on Public Administration* 3223 Beech St.
- IRA ERNEST STEELE, A.M.  
*Lecturer in Accounting* 5077 26th Rd. N.  
Arlington, Va.
- EDWIN LOCKWOOD STEVENS, A.M.  
*Assistant Professor of Speech* 2711 Terrace Rd. SE.
- CHARLES FREDERICK STIEGLER, A.B., M.D.  
*Clinical Instructor in Pediatrics* Seven Corners  
Falls Church, Va.
- JOSEPH WILLIAM STILL, M.D., M.P.H.  
*Instructor in Physiology* Route 1  
Sterling, Va.
- JONATHAN DAYTON STODDART, A.M.  
*Instructor in Political Science* 4508 S. 34th St.  
Fairlington, Va.
- MYER HAROLD STOLAR, B.S., M.D.  
*Associate in Medicine* 2913 M St.
- \*GEORGE WINCHESTER STONE, JR., PH.D.  
*Professor of English Literature* 4 Buchanan St.  
McLean, Va.
- THOMAS ARCHIE STONE, PH.D.  
*Professorial Lecturer in Religion* 1302 18th St.
- MICOLLIUS NOEL STOW, M.D., D.M.S.  
*Clinical Instructor in Ophthalmology* 1746 K St.
- KARL ERNEST STROMSEM, PH.D.  
*Professorial Lecturer on Public Administration;  
Adviser on Government Intern Scholarships* 1910 Sudbury Rd.
- DONALD HARRISON STUBBS, A.M., M.D.  
*Clinical Professor of Anesthesiology* 305 Mansion Dr.  
Alexandria, Va.
- SAMUEL JACOB NATHAN SUGAR, PHAR.G.,  
M.D.  
*Clinical Instructor in Medicine* 4218 28th St.  
Mt. Rainier, Md.
- RAFAEL SUPERVÍA, DOCTOR EN DERECHO  
*Assistant Professor of Spanish* 3879 Rodman St.
- EDITH SHORES SURREY, A.M.  
*Instructor in Speech* 8900 Walden Rd.  
Silver Spring, Md.
- HAROLD GRIFFITH SUTTON, M.S.  
*Professor of Finance; Director of Admissions* 105 W. Underwood St.  
Chevy Chase, Md.
- LEWIS KAIGLER SWEET, A.B., M.D.  
*Adjunct Clinical Professor of Pediatrics* 817 W. Broad St.  
Falls Church, Va.

\* On sabbatical leave 1950-51.



- SAMUEL ROSS TAGGART, M.D.  
*Assistant Clinical Professor of Medicine* 3269 Worthington St.
- IRENE GORSKI TAMAGNA, M.D.  
*Clinical Instructor in Medicine* 4709 Montgomery Lane  
Bethesda, Md.
- ROLAND HENRY TANCK, A.M.  
*Associate in Psychology* 2028 G St.
- ASRIEL TARAGIN, B.E.  
*Lecturer in Civil Engineering* 434 Ingraham St.
- MARJORIE TATE, A.M.  
*Assistant Professor of Physical Education for Women* 3726 Connecticut Ave.
- NORMAN TAUB, B.S., M.D.  
*Associate in Psychiatry* 3742 Appleton St.
- JAMES HENRY TAYLOR, Ph.D.  
*Professor of Mathematics* Route 5  
Rockville Pike  
Rockville, Md.
- ROBERT GEORGE TAYLOR, M.D.  
*Clinical Instructor in Medicine* 1603 Van Buren St.
- WILLIAM DANDRIDGE TERRELL, JR., M.D.  
*Clinical Instructor in Obstetrics and Gynecology* 5082 Lowell St.
- JOHN NEWELL TEVIS, A.M.  
*Associate in Physics* 2502 Lee Hwy.  
Arlington, Va.
- LAWRENCE JAY THOMAS, B.S., M.D.  
*Associate in Medicine* 8019 Eastern Ave.  
Silver Spring, Md.
- CHARLES WATERS THOMPSON, M.D.  
*Clinical Instructor in Medicine* 1851 Columbia Rd.
- RICHARD KNIGHT THOMPSON, D.D.S.  
*Associate in Dental Surgery* 1835 I St.
- RONALD BETTES THOMPSON, A.B.  
*Assistant Professor of European History* 2127 California St.
- THOMAS CARLTON THOMPSON, B.S., M.D.  
*Clinical Professor of Urology* 2032 16th St.
- GEORGE TIEVSKY, M.D.  
*Clinical Instructor in Radiology* 2730 Wisconsin Ave.
- JOHN ALBERT TILLEMA, Ph.D., LL.M., S.J.D.  
*Professor of Political Science* 1903 N. Harvard St.  
Arlington, Va.
- LOUIS WILLIAM TORDELLA, Ph.D.  
*Lecturer in Mathematics* 3620 39th St.
- WILLIAM GEORGE TORPEY, Ph.D.  
*Lecturer on Public Administration* 810 Grandview Dr.  
Beverly Hills  
Alexandria, Va.
- KATHRYN MILDRED TOWNE, A.M.  
*Associate Professor of Home Economics* 2150 Pennsylvania Ave.
- FRANCIS GERALD TOYE, B.S. in E.E., LL.B.  
*Professorial Lecturer in Law* 1817 Sudbury Rd.



- CARLETON RAYMOND TREADWELL, Ph.D.  
*Associate Professor of Biochemistry* Lee Gardens  
Arlington, Va.
- JOHN WATKINS TRENIS, A.B., M.D.  
*Associate in Medicine* 1150 Connecticut Ave.
- ROBERT GAY TRUMBULL, B.S. in C.E.  
*Associate Professor of Mechanical Engineering* 3705 Gunston Rd.  
Alexandria, Va.
- FRED SALISBURY TUPPER, Ph.D.  
*Professor of English Literature* 2320 N. Vernon St.  
Arlington, Va.
- WILLIAM LEWIS TURNER, A.M.  
*Associate Professor of English; Assistant Dean  
of the Junior College* 2202 Washington Ave.  
Silver Spring, Md.
- CURTIS EDWARD TUTHILL, Ph.D.  
*Associate Professor of Psychology* 5612 24th St. N.  
Arlington, Va.
- HARRIET ELIZABETH TWOMBLY, A.B., M.D.  
*Associate in Psychiatry* St. Elizabeths Hospital
- BENJAMIN DOUGLASS VAN EVERA, Ph.D.  
*Professor of Chemistry; Coordinator of Scientific  
Activities* 2124 I St.
- HOMER KING VANN, A.B., M.D.  
*Clinical Instructor in Oto-rhino-laryngology* 1811 Sudbury Rd.
- WILLIAM CABELL VAN VLECK, A.B., LL.B.,  
S.J.D., LL.D.  
*Professor of Law* 4120 Harrison St.
- ALBERTO VÁZQUEZ, Ph.D.  
*Lecturer on Spanish American Literature* 5721 11th Rd. N.  
Arlington, Va.
- ALICE SYLVIA VENEZKY, Ph.D.  
*Instructor in English Composition* 4719 8th St.
- DOROTHY HELENE VEON, Ed.D.  
*Assistant Professor of Secretarial Studies* 4607 Connecticut Ave.
- ROBERT CORBIN VINCENT, Ph.D.  
*Associate Professor of Chemistry* 1705 Surrey Lane
- WILLIAM VORENBERG, A.M.  
*Instructor in Speech* 212 1st St. SE.
- DOROTHY EMILY VOSS, Ed.B., R.P.T.T.  
*Assistant in Physical Medicine* 2223 H St.
- MERTON THEODORE WAITE, M.D.  
*Clinical Instructor in Anatomy* 2505 13th St.
- EDGAR STOVER WALKER, B.S. in C.E.  
*Lecturer in Civil Engineering* 5112 Watson St.
- LuVERNE CRABTREE WALKER, A.M.  
*Lecturer in Education* P. O. Box 411  
Alexandria, Va.
- KEENE MANNING WALLACE, M.D.  
*Associate in Radiology* 5608 Overlea Rd.



- DONALD WALTERS, M.D.  
*Clinical Instructor in Obstetrics and Gynecology* 1801 I St.
- CARL HUGO WALTHER, B.E., M.C.E.  
*Professor of Civil Engineering; Assistant Dean of the School of Engineering* 1337 27th St.
- MARIE DI MARIO WANN, Ph.D.  
*Instructor in Statistics* 2029 G St.
- JOHN AUGUSTINE WASHINGTON, A.B., B.S., M.D.  
*Assistant Clinical Professor of Pediatrics* 5059 Glenbrook Terrace
- \*DONALD STEVENSON WATSON, Ph.D.  
*Professor of Economics* Route 1  
Vienna, Va.
- JAMES WINSTON WATTS, B.S., M.D.  
*Professor of Neurological Surgery* 4661 Garfield St.
- DAVID BENSON WEAVER, A.B., LL.B.  
*Assistant Professor of Law* 121 N. Wayne St.  
Arlington, Va.
- WILLIAM JACK WEAVER, JR., A.B., M.D.  
*Clinical Instructor in Medicine* 3721 Holmes Lane  
Alexandria, Va.
- GEORGE DAVIS WEICKHARDT, M.D.  
*Clinical Instructor in Neurology* St. Elizabeths Hospital
- \*FRANK MARK WEIDA, Ph.D.  
*Professor of Statistics* 7130 Hampden Lane  
Bethesda, Md.
- JACOB JOSEPH WEINSTEIN, B.S., PHAR.G., M.D.  
*Associate in Surgery* 2248 Washington Ave.  
Silver Spring, Md.
- CARL HUNT WELLS, B.S., M.D.  
*Associate Professor of Pathology* 5529 Manning Dr.  
Bethesda, Md.
- MERLE WELSHANS, A.M.  
*Assistant Professor of Business Administration* 2029 G St.
- WARREN REED WEST, Ph.D.  
*Professor of Political Science; Dean of the Division of Special Students* 5020 Sedgwick St.
- JOACHIM WEYL, Ph.D.  
*Lecturer in Mathematics* Route 3  
Fairfax, Va.
- RICHARD LEE WHELTON, M.D.  
*Clinical Instructor in Medicine* 712 Emerson St. NE.
- RUTH HECHLER WICHELHAUSEN, M.D.  
*Associate in Medicine* 2231 California St.
- ALLEN WIDOME, M.D.  
*Clinical Instructor in Anesthesiology* 2800 Woodley Rd.
- ALVA CURTIS WILGUS, Ph.D.  
*Professor of Latin American History* 3021 Cambridge Pl.

\* On sabbatical leave winter term 1950-51.



RICHARD WALLACE WILKINSON, M.S., M.D. <i>Associate in Ophthalmology</i>	1419 Whittier St.
WENDELL MELVIN WILLETT, M.D. <i>Associate in Dermatology and Syphilology</i>	4000 Cathedral Ave.
EARL LARKIN WILLIAMS, A.M. <i>Lecturer in Mathematics</i>	P. O. Box 177 Gaithersburg, Md.
EDITH LOUISE WILLIAMS, A.M. <i>Instructor in English Composition</i>	4720 32d St. N. Arlington, Va.
JONATHAN MARSHALL WILLIAMS, M.D. <i>Clinical Instructor in Neurological Surgery</i>	705 Highland Ave.
THOMAS FRASIER WILLIAMS, M.D. <i>Clinical Instructor in Oto-rhino-laryngology</i>	1228 N. Irving St. Arlington, Va.
MEREDITH CHESTER WILSON, B.S. <i>Adjunct Professor of Education</i>	3005 S. Dakota Ave. NE.
THOMAS ASHTON WILSON, M.D. <i>Clinical Instructor in Obstetrics and Gynecology</i>	1150 Connecticut Ave.
IRVING WOLFE WINIK, M.D. <i>Assistant Clinical Professor of Medicine</i>	2111 Bancroft Pl.
JUANITA MAY WINN, A.M. <i>Lecturer in Education</i>	706 E St. SE.
CHARLES SAMUEL WISE, B.S., M.D. <i>Professor of Physical Medicine</i>	4120 1st St. SE.
*WILLIAM ADRIANCE WITHINGTON, A.M. <i>Instructor in Geography</i>	1426 21st St.
HERBERT DEGRANGE WOLFF, JR., M.D. <i>Clinical Instructor in Urology</i>	2 Fort Drive Alexandria, Va.
REUBEN ESSELSTYN WOOD, Ph.D. <i>Assistant Professor of Chemistry</i>	2801 Pennsylvania Ave. SE.
SAMUEL NATHANIEL WRENN, Ph.D. <i>Professor of Chemistry</i>	3130 5th St. N. Arlington, Va.
KENNETT WILLIAM YEAGER, Ph.D. <i>Assistant Professor of Sociology</i>	316 Livingston Terrace SE.
LEON YOCHELSON, A.B., M.D. <i>Assistant Clinical Professor of Psychiatry</i>	2964 Newark St.
LAWSON EDWIN YOCUM, Ph.D. <i>Professor of Botany</i>	4509 Western Ave.
DONNELL BROOKS YOUNG, Ph.D. <i>Professor of Zoology</i>	7128 Hampden Lane Bethesda, Md.
RALPH AUBREY YOUNG, M.B.A., Ph.D. <i>Professorial Lecturer in Economics</i>	2836 Chesapeake St.
HYMAN JOSEPH ZIMMERMAN, A.B., M.D. <i>Clinical Instructor in Medicine</i>	5351 Quincy Pl. Bladensburg, Md.

\* On leave of absence 1950-51.



## SEMINAR LECTURERS

## PHARMACY

- FREDERICK JOHN CULLEN, PHAR.G., M.D.  
*Professorial Lecturer on Drug Manufacture* 810 18th St.
- JAMES JOHNSON DURRETT, M.S., PHAR.G., M.D.  
*Professorial Lecturer on Drug Control Problems* Route 1  
Hyattsville, Md.
- ROBERT PHILIP FISCHER, B.S., PHAR.D., Sc.D.  
*Professorial Lecturer on Pharmaceutical Organizations* 2215 Constitution Ave.
- CARSON PETER FRAILEY, PHAR.D., Sc.D.  
*Professorial Lecturer on Industrial Pharmacy* 3704 Livingston St.
- JAMES ALBERT HORTON, LL.B.  
*Professorial Lecturer on Drug Trade Regulations* Westchester Apts.
- JOHN CHRISTIAN KRANTZ, JR., PH.D.  
*Professorial Lecturer on Pharmaceutical Research* Ellingham Rd.  
Ruxton, Md.
- GEORGE POTTER LARRICK  
*Professorial Lecturer on Drug Control* 4841 30th St. N.  
Arlington, Va.
- JUSTIN LAWRENCE POWERS, PH.D.  
*Professorial Lecturer on Official Drug Standards* 833 S. Barton St.  
Arlington, Va.
- ROBERT LEE SWAIN, PHAR.D., LL.B.  
*Professorial Lecturer on Contemporary Pharmacy* 330 W. 42d St.  
New York City

## MEDICINE

- CHARLES ARMSTRONG, B.S., M.D., Sc.D.  
*Professorial Lecturer in Preventive Medicine* 7005 Meadow Lane  
Chevy Chase, Md.
- JAMES EARLE ASH, JR., M.D.  
*Professorial Lecturer in Pathology* 8403 Dixon Ave.  
Silver Spring, Md.
- SARA ELIZABETH BRANHAM, PH.D., M.D., Sc.D.  
*Professorial Lecturer in Preventive Medicine* 5523 Johnson Ave.  
Bethesda, Md.
- ROBERT CARTER COOK  
*Professorial Lecturer on Medical Genetics* 1507 M St.
- ROLLA EUGENE DYER, A.B., M.D., LL.D.  
*Professorial Lecturer in Preventive Medicine* 12 North Dr.  
Bethesda, Md.
- CHESTER WILSON EMMONS, PH.D.  
*Professorial Lecturer on Medical Mycology* Route 5  
Rockville, Md.
- ROBERT HANNA FELIX, M.D., M.P.H.  
*Professorial Lecturer on Mental Hygiene* 5802 Roosevelt St.  
Bethesda, Md.
- WALLACE HARRY GRAHAM, B.S., M.D.  
*Professorial Lecturer in Surgery* The White House
- JOHN RODERICK HELLER, JR., B.S., M.D.  
*Professorial Lecturer on Venereal Disease Control* 8615 Lynnbroad Dr.  
Bethesda, Md.



ELSON BOWMAN HELWIG, B.S., M.D. <i>Professorial Lecturer in Pathology</i>	14 West Maple St. Alexandria, Va.
CARL JOHN LAUTER, M.S. <i>Professorial Lecturer on Municipal Sanitation</i>	5902 Dalecarlia Pl.
ELIZABETH MAPLES DEN RAMSEY, A.B., M.D. <i>Professorial Lecturer in Pathology</i>	3420 Q St.
HENRY RAPPAPORT, M.D. <i>Professorial Lecturer in Pathology</i>	2130 Taft St. N. Arlington, Va.
ROYD RAY SAYERS, A.M., M.D. <i>Professorial Lecturer on Industrial Hygiene</i>	1539 29th St.
HANS FRANK SMETANA, M.D. <i>Professorial Lecturer in Pathology</i>	6100 14th St.
NORMAN HAWKINS TOPPING, A.B., M.D. <i>Professorial Lecturer on Rickettsial Diseases</i>	10 North Dr. Bethesda, Md.
WILLARD HULL WRIGHT, D.V.M., Ph.D. <i>Professorial Lecturer on Medical Zoology</i>	6624 32d Pl.
CLARK HARVEY YEAGER, M.D., Dr.P.H. <i>Professorial Lecturer on Tropical Medicine</i>	13 Midvale Rd. Baltimore, Md.

# ASSISTANTS

## ASSISTANTS IN RESEARCH AND INSTRUCTION

EILEEN DENNEY ALLEN, A.M. <i>Teaching Fellow in English</i>	3550 Martha Custis Dr. Alexandria, Va.
DAVID HARGIS BARKER, B.S., M.D. <i>Research Fellow in Infectious Diseases</i>	1533 W. Falkland Lane Silver Spring, Md.
JOHN EDMOND BECHTOLD, A.B., M.D. <i>Research Fellow in Cardiology</i>	1335 H St.
JEAN ELIZABETH BENTON, A.M. <i>Teaching Fellow in History</i>	711 Elm St. Chevy Chase, Md.
GUY NEILL BERRY, B.S., M.D. <i>Fellow in Surgery</i>	2222 I St.
ALICE NEUMAN BESSMAN, A.B., M.D. <i>Teaching Fellow in Medicine</i>	3032 Rodman St.
JOHN ROBERT BUCHHEIT, M.S. <i>Isabella King Fellow in Biology</i>	1500 Farragut St.
NEIL WARREN BYER, A.M. <i>Teaching Fellow in English</i>	2029 G St.
JOSEPH AUGUSTINE CONNOR, JR., M.D. <i>Teaching Fellow in Medicine</i>	1906 Amherst Rd. Hyattsville, Md.
CLEM CASPER CROSSLAND, JR., M.D. <i>Fellow in Medicine</i>	193 Delaware Hall Arlington Farms, Va.
CHARLOTTE MOOAR DAMRON, M.S. <i>Teaching Fellow in Biochemistry</i>	3685 38th St.



- |   |  |
|---|--|
| FRANKLIN MILTON EVERETT, B.S.<br><i>Teaching Fellow in Physics</i>                  | 5421 Carolina Pl.                          |
| MICHAEL MITCHELL FRODYMA, M.S.<br><i>Teaching Fellow in Chemistry</i>               | 1507 Rhode Island Ave.                     |
| JANET WILSON HARTLEY, B.S.<br><i>Sanders Fellow in Bacteriology</i>                 | 3513 Idaho Ave.                            |
| SALARD JUNHAVAT, B.M.<br><i>Fellow in Anesthesiology</i>                            | University Hospital                        |
| PAULA REINES KAISER, M.D.<br><i>Fellow in Anesthesiology</i>                        | 5320 Moorland Lane<br>Bethesda, Md.        |
| JOHN McRAE KENNELLY, JR., M.D.<br><i>Fellow in Surgery</i>                          | Presidential Gardens<br>Alexandria, Va.    |
| NORMAN CLIFFORD KRAMER, M.S.<br><i>Sanders Fellow in Biochemistry</i>               | 1827 Park Rd.                              |
| EDWARD CLIFFORD McGARRY, A.B., M.D.<br><i>Fellow in Pathology</i>                   | 11525 Grandview Ave.<br>Silver Spring, Md. |
| NORMA RICH METZNER, A.B.<br><i>Teaching Fellow in Psychology</i>                    | 306 Livingston Terrace SE.                 |
| LOUIS JOSEPH MICHINI, M.S.<br><i>Sanders Fellow in Bacteriology</i>                 | 7542 12th St.                              |
| FRANK NELSON MILLER, B.S., M.D.<br><i>Fellow in Pathology</i>                       | 2222 I St.                                 |
| DeLORA FOWLER MOTT, M.D.<br><i>Fellow in Neurology and Neurological Surgery</i>     | 1020 19th St.                              |
| MERRILL FREDERICK NELSON, A.B., M.D.<br><i>Fellow in Cardiology</i>                 | 1335 H St.                                 |
| RAYMOND RENO, A.B.<br><i>Teaching Fellow in English</i>                             | 1218 Perry St. NE.                         |
| EUGENE WORTHINGTON RICE, M.S.<br><i>Sanders Fellow in Biochemistry</i>              | 603 Massachusetts Ave.<br>NE.              |
| JESUS SANCHEZ-PEREZ, M.D.<br><i>Fellow in Neurology and Neurological Surgery</i>    | 1502 21st St.                              |
| CHARLES HERBERT SPENCER, JR., B.S., M.D.<br><i>Fellow in Anesthesiology</i>         | University Hospital                        |
| HAROLD WADE SPIES, M.D.<br><i>Research Fellow in Medicine</i>                       | 2523 Congress St. SE.                      |
| CHARLES TODD STEWART, JR., A.M.<br><i>Sanders Teaching Fellow in Economics</i>      | 5617 Ruatan St.<br>Berwyn, Md.             |
| CELIA WHITE TABOR, A.B., M.D.<br><i>Fellow in Medicine</i>                          | 4 North Dr.<br>Bethesda, Md.               |
| LASZLO NANDOR TAUBER, M.Ch., M.D.<br><i>Teaching Fellow in Neurological Surgery</i> | 6519 Piney Branch Rd.                      |



- JAMES RICHARD THISTLETHWAITE, B.S.,  
M.D.  
*Fellow in Surgery* 1008 10th St.  
Alexandria, Va.
- EKREM TURAN, M.D.  
*Research Associate in Obstetrics and Gynecology* 2326 California St.
- ARCESIO ZUÑIGA, M.D.  
*Fellow in Neurology and Neurological Surgery* 1320 19th St.

## TECHNICAL ASSISTANTS

- RUDOLPH BAILEY  
*Stockroom Clerk in Chemistry* 112 W. Cameron Rd.  
Falls Church, Va.
- JAMES CRAWFORD BRUCE  
*Laboratory Assistant in the Medical School* 220 Ridge Rd. SE.
- JOHN CHRISTIAN GALL, JR.  
*Technician in Anatomy* 3506 Macomb St.
- JANINA MARIA GORCZYCA  
*Technician in Neurology* 2405 1st St.
- WINONA SIMONSEN JENSEN, A.B.  
*Laboratory Technician in Medicine* 2990 New Castle Ave.  
Forest Glenn, Md.
- EDWARD WALTER JYLKKA  
*Stockroom Clerk in Pharmacy* 1918 H St.
- ANN McCLOSKEY  
*Medical Statistician in Neurology* 2014 R St.
- CLARENCE WILBUR MILLER  
*Technician in Pathology* 4010 9th St. NE.
- CAYETANO NAGAC, A.B.  
*Technician in Pathology* 1911 Pennsylvania Ave.
- HARRY ARTHUR ROTH  
*Stockroom Clerk in Chemistry* 1427 Wisconsin Ave.
- NANCY CAROLINE SMITH, B.S.  
*Technician in Bacteriology* 1330 L St.
- LEON SWELL, M.S.  
*Technician in Biochemistry* 1335 H St.



## ADMINISTRATIVE ASSISTANTS

### OFFICE OF THE PRESIDENT

Jessie Bigelow Martin, A.B., *Editorial Assistant*  
Edna Peterson Froehlich, B.S. in Ed., *Secretary to the President*  
Jean Heckman Faught, A.B., *Secretary*  
Mary Lowrie Norwood, A.B., *Assistant*  
Cynthia Anne Phillips, A.B., *Assistant*

---

Leonard Walton Vaughan, A.B., *Personnel Officer (non-academic)*  
Jane Berry, A.M., *Student Placement Assistant*  
Ida May Flinkinger, A.M., *Employment Interviewer*  
Marjorie Johnson, A.B., *Secretary to Personnel Officer*

### OFFICE OF THE VICE-PRESIDENT

Oscar Melvin Hokanson, *Junior Engineer*  
Thelma Collier, *Secretary to the Vice-President*  
Michael Luongo, *Assistant*

### OFFICES OF THE DEANS

Anna Mary Riden, A.B., *Secretary to the Dean of the Junior College*  
Jeanne Elting LeFevre, A.M., *Secretary to the Dean of Columbian College*  
Loretta Mary Payne, *Secretary to the Chairman of the Graduate Council*  
Catherine Breen, *Assistant to the Dean of the School of Medicine*  
Anna Marie Bischoff, A.B., *Recording Secretary in the Law School*  
Bonnie Laird Marsh, A.B., *Secretary to the Dean of the Law School*  
Kaethe Wiegand Wilber, *Secretary in the Law School*  
Elizabeth Koski Houska, B.B.A., *Secretary to the Dean of the School of Engineering*  
Mary Griffiths, *Secretary to the Dean of the School of Pharmacy*  
Nina M. Booth, A.M., *Secretary to the Dean of the School of Education*  
Elizabeth Carsey Carter, *Secretary in the Office of the School of Education*  
Maureen Larkin, *Secretary to the Dean of the School of Government*  
Robert Osborn Mead, A.M., *Assistant to the Dean of the Division of University Students*  
Cynthia Farrall Shannon, *Secretary to the Dean of the Division of University Students*



- Cecile Christine Jenkins, A.B., *Clerk in the Office of the Dean of the Division of University Students*  
Nellie Carr Anderson, A.B., *Assistant to the Dean of the Division of Special Students*  
Barbara Hamblin, A.B., *Secretary in the Division of Special Students*  
Mary Rita McCarthy, *Secretary to the Dean of the Summer Sessions*

## OFFICE OF THE DIRECTOR OF ADMISSIONS

- Adrienne Mann Duffy, A.B., *Assistant to the Director of Admissions*  
Ruth Sinsabaugh Blue, A.B., *Assistant to the Director of Admissions*  
Barbara Saegmuller McAleer, A.B., *Evaluator*  
Rhoda Franklin Trumbull, B.F.A., *Evaluator*  
Mary Lee Chatrnick, *Evaluator*  
Phyllis Elizabeth Barrington, A.B., *Evaluator*  
Elizabeth Anne Buser, A.B., *Evaluator*  
Mary MacLeod Addy, B.S., *Admissions Assistant*  
Isabel Ann Totten, *Admissions Assistant*  
Beverly Bumgarner Krieh, *Admissions Assistant*  
Sally Witten Meier, *Admissions Assistant*  
Pauline Richards, A.B., *Clerk*  
Janet Mary Cavano, A.B., *Clerk*

## OFFICE OF THE REGISTRAR

- Catherine Jackson, *Assistant to the Registrar*  
Barbara Louise Hanby, A.B., *Assistant to the Registrar*  
Anne Hildegard Herwig, *Secretary to the Registrar*  
Catherine MacLeod Ruby, A.B., B.S. in L.S., *Statistical Clerk*  
Barbara Ainsworth Cavallo, *Transcript Clerk*  
Jean Gordon Enriquez, B.S., *Transcript Clerk*  
Loreen Webb McDaniel, *Graduation Clerk*  
Olive Simmons Ussery, *Graduation Clerk*  
Virginia Belle Mattox, *Record Clerk*  
Rea Dalton, *Record Clerk*  
Joan Marie Donaldson, *Record Clerk*  
Shirley Bray Wade, *Statistical Clerk*  
Shirley Belle Posey, *File Clerk*

## THE LIBRARY

- Anna Virginia Appich, A.B., *Secretary to the Librarian; Accessions Assistant*  
Mary Elizabeth Thompson, B.S., B.S. in L.S., *Assistant Librarian, Cataloguing*  
Ella Cooper Thomas, LL.B., *Assistant Librarian, Law Library*



Sally Brewster Jamieson, A.B., B.S. in L.S., *Assistant Librarian, Medical Library*  
Anne von Ammon, *Assistant, Periodical Room*  
Elsie Lois Cree, A.B., A.B. in L.S., *Assistant, Reserve Book Reading Room*  
Katherine Louis Callahan, A.B., *Assistant, Circulation and Reference*  
Anne Albert Best, *Assistant, Cataloguing*  
Martha Haynes Cullen, A.B., *Assistant Cataloguing*  
Hazel Oliver, A.B., *Assistant, Periodical Room*  
Zelda Davies, *Assistant, Circulation and Reference*  
Laura Ellen Stewart, R.R.L., *Assistant, Medical Library*

#### OFFICE OF THE COMPTROLLER

Albert Eldridge Smith, B.C.S., *Accountant*  
John Avis McLaughlin, A.B., *Assistant to the Comptroller*  
Margaret Payne Greene, B.S., *Assistant to the Comptroller*  
William Morton Jenkins, B.C.S., *Assistant to the Comptroller*  
Jessie Mae Packett, *Secretary*  
Mark Riffey, B.C.S., *Acting Auditor*

#### DISBURSING OFFICE

Lamar Lyon Burton, B.S., *Disbursing Officer*  
Beatrice Coffman Warder, *Assistant*  
Virginia Lee Bell, B.S., *Accounting Machine Operator*  
Doris Kirby Harris, *Accounting Machine Operator*  
Lorraine Fairfax, *Accounting Machine Operator*  
Sarah Catherine Troxell, *Payroll Clerk*  
Mary Bernice Gaffney, *Voucher Assistant*  
Yvonne Worden, *Clerk*

#### OFFICE OF THE CASHIER

Joseph Hume Spicer, B.C.S., *Cashier*  
Daniel John Tyrrell, *Assistant Cashier*  
Mildred Letitia Stewart, *Assistant to Cashier*  
Ruth Ramsdell Weiser, *Clerk*  
Phyllis Grove, A.B., *Clerk*  
Barbara Marie Ball, *Clerk*  
William Dewell McCown, A.B., *Assistant to Cashier, Veterans Section*  
Doris Toombs, *Clerk, Veterans Section*  
Nina Jo Hackett, *Clerk, Veterans Section*  
Betty Lou George, *Clerk, Veterans Section*



Mary Elizabeth Beck, *Clerk, Veterans Section*  
 Barbara Terry, *Clerk, Veterans Section*  
 Rachel Gomer Jackson, *Clerk, Veterans Section*

OFFICE OF THE BUSINESS MANAGER

Donn Keyes Jenkins, B.M.E., *Assistant Business Manager*  
 Henrietta Rosenblatt, *Purchasing Assistant*  
 Lillian Rebecca Gilroy, *Secretary*  
 Margaret Minerva Harlan, *Clerk*  
 Vincent Duwain Bateman, *Superintendent of Stores*  
 George John Janetis, *Supervisor of University Stores*  
 John Clarence Casey, *Stock Clerk*  
 Joseph James Matthews, Jr., B.S., *Superintendent of Maintenance*  
 George Dewey Eckert, *Superintendent of Shop*  
 David Maurice Barrie, *Custodial Supervisor*  
 Earl Richard Kirker, A.B., *Clerk*  
 Lillian Wright Smith, *Garden Consultant*  
 Birdie Harris, *Manager of Student Union*  
 Karolina Hedler, B.S., *Assistant Manager of Student Union*  
 George Minasian, A.B., *University Co-operative Store, Book Department Manager*  
 Margaret Hughes Pfaefflin, *Chief Telephone Operator*  
 Sarah Cook Monts, *Telephone Operator*

PUBLIC RELATIONS

Margaret Davis, A.M., *Assistant Director of Public Relations*  
 Barbara Guinn, *Staff Writer*  
 Thomas Joseph Coleman, *Public Relations Assistant*  
 Lois Smith Simpson, A.B., *Assistant to the Director of Public Relations*  
 Faith Dougherty, *Secretary, Public Relations*

ALUMNI RELATIONS

Sara Ford Dallmeyer Pine, *Assistant Director of Alumni Relations*  
 Natalie Intrater, *Secretary*  
 Betty Byrne, *Record Clerk*

STUDENT ACTIVITIES

Ann MacMillan Wacker, A.B., *Assistant to the Director of Activities for Women*  
 Lois Carolyn Lord, A.M., *Secretary in the Office of Student Activities*  
 Priscilla Frances Hufford, *Secretary, Office of the Director of Activities for Women*



Dorothy Louise Chaddock, *Secretary to the Director of Activities for Men*  
 Roberta Cregier Lush, *Secretary, Office of the Director of Activities for Men*  
 Myrtle Leona Dozier, *Stenographer, Office of Director of Activities for Men*

## INTERCOLLEGIATE ATHLETICS

John Howell Rowland, LL.B., *Head Football Coach*  
 William Jennings Reinhart, B.B.A., *Head Baseball and Head Basketball Coach*  
 Eugene Hugh Sherman, Sr., B.S., *Assistant Football Coach and Freshman Basketball Coach*  
 Roger Antaya, A.M., *Assistant Football Coach*  
 Timothy Swett, B.S., *Assistant Football Coach*  
 Mike Monchlovich, B.S., *Athletic Trainer*

## MUSICAL ACTIVITIES

Robert Howe Harmon, A.B., M.D., *Director of the Glee Clubs*  
 Grace Ruble Harmon, *Associate Director of the Glee Clubs*  
 Leon Brusiloff, *Director of The George Washington University Band*

## VETERANS EDUCATION

Janet Segal Kirshner, A.M., *Counselor and Assistant to the Director of Veterans Education*  
 Barbara Northrup, A.M., *Counselor-Receptionist*  
 Virginia Mae Sherard, *Chief Clerk*  
 Betty Ann Price, *Chief Clerk*  
 Eleanor Byron Diane, *Clerk*  
 Paul Caselton, A.B., *Clerk*

## RESIDENCE AND SORORITY HALLS

Zoa Van Winkle, B.S., *Hostess in the Hattie M. Strong Residence Hall for Women*  
 Jessie Ramsey Lee, *Hostess in Staughton Hall*  
 Virginia Randolph Kirkbride, A.M., *Hostess in Sorority Hall, 2129 G Street*  
 Helen Poljacik, *Hostess, Residence Hall for Women, 2025 H Street*



## HISTORY AND ORGANIZATION

### UNIVERSITY

## THE UNIVERSITY



The George Washington University

Dorothy Louise Chaddock, Secretary to the Director of Activities for  
Men  
Roberta Creggie Lusk, Secretary, Office of the Director of Activities for  
Men  
Myrtle Louise Dasher, Assistant, Office of Director of Activities for  
Men

Intercollegiate Athletics

John Howell Kinslow, U.S.B., Head Football Coach  
William Jennings Kinslow, S.S.A., Head Basketball and Head Basketball  
Coach  
Ernest Hugh Stroud, S.S., Head of Football, Football Coach and Football  
and Basketball Coach  
Roger Anthony A.M., Assistant Football Coach  
Franklin Owen, S.S., Assistant Football Coach  
Walter Marshall, S.S., Assistant Football Coach

THE UNIVERSITY

Robert Henry Matthews, A.B., M.A., Director of the Old Church  
George Noble Hastings, Executive Director of the Old Church  
Lynn Brundish, Director of The George Washington University Band

VETERANS EDUCATION

James Lloyd Kinslow, A.M., Coordinator and Assistant to the Director of  
Veterans Education  
Barbara H. Dwyer, A.M., Coordinator of Veterans  
Virginia Mae Sherwin, Chief Clerk  
Eugene Lee Felt, Chief Clerk  
Samuel Henry Dean, Clerk  
Paul Campbell, A.B., Clerk

RESIDENCE AND SOCIETY HALLS

Edna Jean Wicks, S.S., Housing in the Home M. Living Residence Hall  
for Women  
John Kinslow, A.M., Housing in Society Hall  
Charles Kinslow, A.M., Housing in Society Hall, 1935  
John Kinslow, A.M., Housing in Society Hall, 1935  
John Kinslow, A.M., Housing in Society Hall, 1935



## HISTORY AND ORGANIZATION

### HISTORY

The idea of a university located in the Capital of the Nation was sponsored by George Washington, who during his public life urged the establishment of such an institution and who in his will left fifty shares of stock in the Potomac (Canal) Company for the endowment of a university to be established in the District of Columbia "to which the youth of fortune and talents from all parts thereof might be sent for the completion of their Education in all the branches of polite literature;—in arts and Sciences,—in acquiring knowledge in the principles of Politics & good Government".

It was George Washington's hope that the "General Government" would extend toward such an institution "a fostering hand". No steps were taken by Congress to carry out the provision of Washington's will, and the stock that he had bequeathed for the establishment of a university in the District of Columbia became valueless owing to the failure of the Potomac Canal properties.

Meanwhile, however, a movement was started by private persons under the leadership of Luther Rice to establish an institution of higher learning at the seat of the National Government for the education of the Baptist ministry and to afford general collegiate training. In 1819 an association was formed by Luther Rice, Obadiah B. Brown, Spencer H. Cone, and Enoch Reynolds for the purpose of raising funds to buy land for the use of the college.

A group of the Nation's leaders who were especially interested in Washington's idea became patrons of the college and contributed to funds raised for the purchase of land and erection of buildings. Among them were James Monroe, President of the United States; William H. Crawford, Secretary of the Treasury; John C. Calhoun, Secretary of War; William Wirt, Attorney General; Return J. Meigs, Postmaster General; and thirty-two members of the Congress.

Legally to implement the college a petition was made to Congress for the incorporation of "the General Convention of the Baptist Denomination in the District of Columbia for evangelical and literary purposes". This petition was denied by Congress, on April 26, 1820, because of its sectarian character.

Failing to obtain a denominational charter, members of the association enlarged their objective to embrace national aims, and with the sponsorship of Government leaders there was presented in Congress a bill for the incorporation of "the Columbian Society for literary pur-



poses", it being proposed to realize in this way "the aspirations of Washington, Jefferson and Madison for the erection of a university at the seat of the federal government".

Acting upon this second petition, on February 9, 1821, Congress chartered Columbian College in the District of Columbia, inserting in the charter by special action the provision "That persons of every religious denomination shall be capable of being elected Trustees; nor shall any person, either as President, Professor, Tutor or pupil, be refused admittance into said College or denied any of the privileges, immunities or advantages thereof, for or on account of his sentiments in matters of religion".

Thus Columbian College in the District of Columbia was chartered by Congress as one of the early nonsectarian institutions of higher learning in the United States, under the distinguished favor of President James Monroe and members of his Cabinet.

A tract of approximately forty-seven acres, extending about one-half mile northwest of Boundary Street (Florida Avenue) between 14th and 15th Streets, was purchased and by 1822 the main building was completed sufficiently to use.

Two years later, when the first Commencement was held on December 15, 1824, Congress and the Supreme Court adjourned their sessions to enable their members to attend the exercises. President Monroe, John Quincy Adams, John C. Calhoun, Henry Clay, and the Marquis de Lafayette headed the eminent company in attendance.

By an act of Congress of March 3, 1873, the name of the college was changed to "Columbian University", in recognition of the enlarged scope of the institution. In 1884 the University was moved from its first location on "College Hill"; now Columbia Heights, to the new University Hall built for it at Fifteenth and H Streets. Near-by buildings accommodated the School of Medicine and, somewhat later, the Law School.

For a period of six years, from 1898 to 1904, the University was placed under control of the Baptist Denomination. In 1904 an act restoring the original secular character of the University and authorizing change of name to The George Washington University was passed by Congress.

Subsequently all the colleges, schools, and divisions of the University except the School of Medicine were brought together in the area bounded by Nineteenth, Twenty-third, and G Streets, and Pennsylvania Avenue NW. The School of Medicine is situated on H Street between Thirteenth and Fourteenth Streets NW.

The endowment of the University is \$2,900,000.

In 1930 a new plan of academic organization for the liberal arts work was effected in the establishment of the Junior College and the redefining of graduate work, as indicated below.



## THE COLLEGES, SCHOOLS, AND DIVISIONS

The George Washington University includes twelve colleges, schools, and divisions, as follows:

The Junior College offers the work of the first two years of the four-year college program in the liberal arts and sciences; two years of pre-professional work; and two-year terminal courses. Each of these curricula leads to the degree of Associate in Arts.

Columbian College offers the work of the junior and senior years of the four-year college program in the liberal arts and sciences leading to the degrees of Bachelor of Arts and Bachelor of Science. It also offers the studies leading to the degrees of Master of Arts and Master of Science in the fields of the liberal arts and sciences.

The Graduate Council offers a program of advanced study and research leading to the degree of Doctor of Philosophy.

The School of Medicine offers work leading to the degree of Doctor of Medicine.

The Law School offers professional and graduate courses leading to the degrees of Bachelor of Laws, Juris Doctor, Master of Laws, Master of Comparative Law, and Doctor of Juridical Science.

The School of Engineering offers courses leading to the degrees of Bachelor of Civil Engineering, Bachelor of Electrical Engineering, Bachelor of Mechanical Engineering, and Bachelor of Science in Engineering. It also directs work leading to the professional degrees in the fields of civil, electrical, and mechanical engineering.

The School of Pharmacy offers courses leading to the degrees of Bachelor of Science in Pharmacy and Master of Science in Pharmacy.

The School of Education offers undergraduate programs leading to the degrees of Bachelor of Arts in Education, Bachelor of Science in Home Economics, and Bachelor of Science in Physical Education, and graduate studies leading to the degrees of Master of Arts in Education and Doctor of Education.

The School of Government offers undergraduate programs of study in Foreign Affairs, Accounting, Business Administration, and Statistics, leading to the degree of Bachelor of Arts in Government. Graduate work leading to the degree of Master of Arts in Government is offered in these fields and also in Government and Economic Policy, Public Administration, Personnel Administration, and Vocational Counseling.

The Division of University Students makes available courses for mature students, not candidates for degrees in this University.

The Division of Special Students makes available courses for students in the process of qualifying for degree candidacy.

The Summer Sessions.



## ACADEMIC STATUS

The George Washington University is on the final approved list of the Association of American Universities. This fact not only assures to students the academic standards of this association, but also is important to those who desire to transfer credits from one institution to another.

The University is also accredited by its regional accrediting agency, the Middle States Association of Colleges and Secondary Schools, and is on the approved list of the American Association of University Women. The University is a member of the College Entrance Examination Board.

The Law School is a charter member of the Association of American Law Schools and is approved by the Council of Legal Education of the American Bar Association. The School of Medicine is a member of the Association of American Medical Colleges, is one of the medical colleges which have been designated continuously as "class A" by the American Medical Association, and is credited for all its work by the Combined (Royal) Medical Examining Boards in England. The School of Pharmacy is accredited by the American Council on Pharmaceutical Education and is a member of the American Association of Colleges of Pharmacy. The School of Engineering is on the accredited list of the Engineers' Council for Professional Development.

## LOCATION

The George Washington University is in downtown Washington, four blocks west of the White House and east of the Potomac River with its extensive parkway. Readily accessible to the University are many of the departments of the Government, including the Department of State, the Department of the Treasury, the Department of Justice, the Department of the Army, the Department of the Navy, the Department of the Interior, the Department of Agriculture, the Department of Commerce, and the Department of Labor, as well as the National Archives, the Capitol, the Library of Congress, the National Academy of Sciences, the Pan American Union, the National Gallery of Art, and the Corcoran Gallery of Art.

## GOVERNMENT

The government and general educational management of The George Washington University are vested in a self-perpetuating Board of Trustees, with the President and Vice-President of the University as members ex officio. The members of the Board are named for a period of three years and are divided into three classes. The members of one class are elected at each annual meeting to fill the places of the members whose terms of office expire. Two members of each class are nominated by the Alumni Association.



## EDUCATIONAL FACILITIES

### BUILDINGS

Buildings, grounds, and equipment are valued at approximately \$17,000,000.

The buildings of the Junior College, Columbian College, the Graduate Council, the Law School, the School of Engineering, the School of Pharmacy, the School of Education, the School of Government, the Division of University Students, the Division of Special Students, and the University Hospital and Outpatient Department are located between Nineteenth and Twenty-third Streets and between Pennsylvania Avenue and G Street. The School of Medicine is at Fourteenth and H Streets NW. The buildings of the University are as follows:

- Cancer Clinic, 1339 H Street.
- Corcoran Hall, 725 Twenty-first Street. Named in honor of the late William W. Corcoran, benefactor of the University and a former member of the Board of Trustees. Offices of the Comptroller, the departments of Chemistry, Electrical Engineering, and Physics; the chemistry, electrical engineering, and physics laboratories; classrooms.
- Everglades Apartments, 2223 H Street, a residence hall for nurses.
- Faculty Club House, 714 Twenty-first Street.
- Gymnasium, 2010-12 H Street.
- Hall of Government, 710 Twenty-first Street. The gift of Mrs. Henry Alvah Strong, Trustee of the University. Offices of the Dean of the School of Government, the departments of Business Administration, Economics, History, Political Science, and Statistics; classrooms.
- Hospital and Outpatient Department, Washington Circle.
- International House, 2116 G Street. Office of the Adviser to Students from Foreign Countries; club rooms.
- Lisner Auditorium, 730 Twenty-first Street. The gift of the late Abram Lisner, former Trustee of the University. The Auditorium; Lisner Lounge; offices and classrooms of the Department of Speech.
- Mechanical Engineering Building, 735 Twenty-first Street. Offices of the departments of Electrical and Mechanical Engineering; engineering testing laboratories, general laboratories, drafting rooms, and classrooms.
- Office of the President, 2003 G Street.
- Office of the Vice-President, 2003 G Street.
- Placement Office, 724 Twenty-second Street.
- School of Medicine, 1335 H Street. Offices of the Staff of the School of Medicine; anatomy, bacteriology, biochemistry, histology and embryology, pathology, pharmacology, and physiology laboratories; the Medical Library; lecture rooms; classrooms; students' rooms.
- Sorority Halls:
  - 2129 G Street. Apartments of Pi Beta Phi, Sigma Kappa, Phi Mu, Alpha Delta Pi, Delta Zeta, Zeta Tau Alpha, and Kappa Kappa Gamma sororities.
  - 2131 G Street. Apartments of Delta Gamma Sorority and Martha Washington Club.
  - 802 Twenty-first Street. Apartments of Chi Omega and Phi Sigma Sigma sororities.



- 2112 G Street. Apartments of Kappa Alpha Theta and Kappa Delta sororities.
- Staughton Residence Hall for Women, 707 Twenty-second Street. Named in honor of William Staughton, the first President of the University (1821-1827).
- Stockton Hall, 720 Twentieth Street. Named in honor of the late Rear Admiral Charles Herbert Stockton, President of the University from 1910 to 1918.
- Offices, library, and lecture halls of the Law School.
- Strong Residence Hall for Women, 620 Twenty-first Street. Named in honor of the donor, Mrs. Henry Alvah Strong.
- Student Union, 2125 G Street. Offices of student organizations; student cafeteria and snack bar, reading room, lounge, game and music rooms.
- University Cooperative Store, 2120 H Street.
- University Library, 2023 G Street. The gift of the late Abram Lisner, former Trustee of the University. The library; rooms of the Board of Trustees and the Graduate Council.
- Veterans' Club, 722 Twenty-second Street.
- Washington Counseling Center, 2011 H Street.
- Welling Hall, 814 Twenty-second Street. Residence Hall for Men. Named in honor of the late James Clarke Welling, President of the University from 1871 to 1894.
- Woodhull House, 2033 G Street. Gift of the late General Maxwell Van Zandt Woodhull, former Trustee of the University. Office of the Director of Activities for Women; meeting rooms for student activities and the Columbian Women.
- Building A, 2026 G Street. Offices of the Department of Romance Languages.
- Building B, 2024 G Street. Offices, laboratories, and classrooms of the Department of Home Economics.
- Building C, 2029 G Street. Offices of the Registrar and the Director of Admissions; offices and laboratories of the departments of Biology, Botany, and Zoology; classrooms.
- Building D, 2013 G Street. Offices of the Dean of the Junior College, the Dean of Columbian College, the Dean of the Division of University Students, the Dean of the School of Education, and the Business Manager; offices of the departments of Art, Classical Languages, Education, English (English Literature), Germanic Languages, Journalism, Mathematics, Philosophy, Psychology, Secretarial Studies, and Sociology; classrooms.
- Building F 2018 I Street. Offices of the Director of Alumni Relations and the Director of Public Relations.
- Building G, 712 Twentieth Street. Offices of the Department of English (Composition section).
- Building H, 714-16 Twentieth Street. Offices and locker rooms of the Department of Physical Education for Women.
- Building I, 2135 G Street. Offices, classrooms, and laboratories of the Department of Geography.
- Buildings J and L, 2131 and 2129 G Street (rear). Classroom and locker rooms of the Department of Physical Education for Women.
- Buildings M and N, 716-18 Twenty-first Street. Offices of the Dean of the School of Engineering and the Department of Civil Engineering.
- Building O, 2106 G Street. Office of the Department of Religion.
- Building P, 2108 G Street. Offices of the Student Health Service and the Dean of the Division of Special Students.
- Building Q, 2029 H Street. Office of the Director of Veterans Education.
- Building R, 2027 H Street. Offices of the Director of Activities for Men, the Department of Physical Education for Men, and the Athletic Staff.
- Building S, 2025 H Street. Residence Hall for Women.



Building U, 720 Twenty-second Street. Reading Clinic.  
Building V, 2114 H Street (rear). Laboratories and classrooms of the Department of Physics.  
Building W, 2128 H Street. Offices of the School of Pharmacy; pharmacy laboratories; classrooms.  
Building X, 725 Twenty-third Street. Drafting rooms and classrooms of the School of Engineering.  
Building Y, 2031 H Street. Offices of the departments of English (American Literature section) and Sociology.

### THE UNIVERSITY LIBRARY

The University Library contains more than 175,000 volumes. The well equipped Library building houses all of the library except the law and medical collections. Over 6,000 bound volumes are added annually, and approximately 900 periodicals and publications of learned societies are received currently. Among the special collections of the Library are the Richard Heinzel Collection of Germanic philology and literature; the Curt Wachsmuth Collection of Greek and Roman literature, archeology, and history; the Mount Vernon Collection on political history, international law, and the social sciences; a representative collection of Spanish American books, the gift of the governments of Hispanic America; the Chauncey Mitchell Depew Public Speaking Collection, the gift of the late Mrs. Depew; and the Art Collection, which contains about 1,000 volumes made available by the American Institute of Architects, and the 7,500 mounted photographs of the Russell Sturgis Collection.

### OTHER LIBRARY FACILITIES

The student has access also to the Library of Congress; the Public Library of the District of Columbia and its branches; the Library of the Pan American Union; the Library of the Bureau of Railway Economics; the Library of the United States Department of Agriculture; the Library of the United States Office of Education; the Army Medical Library; the Library of the Smithsonian Institution; and many of the other great special collections of the government departments.

### GOVERNMENTAL INSTITUTIONS ACCESSIBLE TO STUDENTS

The congress of the United States has made the scientific resources of the Government accessible to students under the terms of the following joint resolution, approved April 12, 1892:

*Resolved by the Senate and House of Representatives of the United States of America, in Congress assembled,* That the facilities for research and illustration in the following and any other Governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each



collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:

- One. Of the Library of Congress.
- Two. Of the National Museum.
- Three. Of the Patent Office.
- Four. Of the Bureau of Education.
- Five. Of the Bureau of Ethnology.
- Six. Of the Army Medical Museum.
- Seven. Of the Department of Agriculture.
- Eight. Of the Fish Commission.
- Nine. Of the Botanic Gardens.
- Ten. Of the Coast and Geodetic Survey.
- Eleven. Of the Geological Survey.



## ADMISSION

All departments of the University accept men and women.

Students may enter any college, school, or division of the University except the School of Medicine at the beginning of the fall term, the winter term, or any of the sessions of the summer term.

Entrance to the School of Medicine in 1950-51 is permitted only at the opening of the term beginning September 1950.

### GENERAL ADMISSION REQUIREMENTS

The following factors are considered in determining the eligibility of an applicant for admission:

1. The adequacy of previous academic work as preparation for the course of study now contemplated—including quantity and quality of work and the standing of the institution in which it was done.
2. The aptitude of the student for the course contemplated.
3. The character of the student.

The University reserves the right to refuse admission to any student who has a previous academic record of such grade as to create doubt of his ability to pursue college work successfully, or who for any other reason would not be a desirable student.

### APPLICATION FOR ADMISSION

An applicant for admission must obtain from the Office of the Director of Admissions an application blank which he must fill out completely and return with the application fee of \$3. A recent photograph, with signature, of the applicant must be attached to the blank.

*Applications should be filed not later than July 1 for the fall term, January 1 for the winter term, and May 1 for the summer term.*

An applicant from a secondary school must send the high school record form provided by the University to his high school principal with the request that the principal fill out the form and mail it *direct* to the Office of the Director of Admissions.

An applicant who has previously attended an institution of higher learning must request the registrar of that institution to mail directly to the Office of the Director of Admissions a transcript of his record. If he has attended more than one such institution he must request the registrar of each institution to send to the Office of the Director of Admissions a transcript of his record, *even though credits were not earned*, together with an honorable dismissal from the institution last attended.



The Graduate Record Examination sponsored by the Carnegie Foundation for the Advancement of Teaching is accepted as supplemental evidence of the applicant's educational attainment, and the appropriate report should accompany the application for admission whenever available.

### METHODS OF ADMISSION

#### FROM SECONDARY SCHOOLS

An applicant from a secondary school may seek to qualify for admission by certificate or examination.

##### By Certificate

A certificate of graduation with a minimum of fifteen "units"\* from an accredited secondary school and the recommendation from the principal of the secondary school that the applicant is prepared to undertake college work will be considered subject to the following conditions:

1. If the school is accredited by the regional accrediting association, the student must rank not lower than the third fifth of his class.
2. If the school is not listed by the regional accrediting association, but has been accredited by the state accrediting agency, the student must rank in the upper two fifths of his class.

##### By College Entrance Board Examinations

An applicant may qualify by passing satisfactorily College Entrance Board examinations as prescribed by the Director of Admissions. These examinations are given at The George Washington University on June 3, 1950; August 23, 1950; December 2, 1950; January 13, 1951, March 10, 1951; May 19, 1951; and August 15, 1951.

Arrangements for the examinations should be made with the College Entrance Examination Board, Post Office Box 592, Princeton, N. J., not less than one month before the date of the examinations.

#### FROM HIGHER INSTITUTIONS†

An applicant for advanced standing may be considered for admission upon the presentation of satisfactory credentials from an accredited institution of higher learning. The student must be in good standing as to scholarship and conduct, and must be eligible to return to the previously attended institution in the term for which he seeks admission to this University.

If the transcript of record from such an institution includes the record

\* A unit represents a year's study in a secondary school subject, including in the aggregate not less than 120 sixty-minute periods of prepared classroom work.

† The University reserves the right to refuse advance credit in whole or in part, or to allow it provisionally. Credit so given may be withdrawn for subsequent poor work.



of his secondary school work, it is not necessary for the applicant to have forwarded a separate record directly from the principal of the secondary school. High school work is considered only as fulfilling entrance requirements; it is never credited toward advanced standing.

Properly certified courses taken at accredited colleges or universities may be applied toward a degree at this University, subject to the curriculum requirements and regulations of the school or college to which admission is sought. Work of low pass grade (such as *D* or the equivalent) will not be considered for transfer.

## ENTRANCE REQUIREMENTS

### THE JUNIOR COLLEGE

An acceptable certificate of graduation from an accredited secondary school, or the satisfactory passing of College Entrance Board examinations selected with the approval of the Director of Admissions is required. (See "Methods of Admission".)

*Distribution of Units for All Curricula except Premedical.*—Except for admission to the premedical curriculum, certification by the principal that the student has satisfied all curriculum requirements of the school will be accepted in lieu of any prescribed distribution of units. Attention is called, however, to the necessity of completing stated prerequisite studies during the secondary school period for admission to certain curricula. It is to be noted that one unit of algebra is prerequisite to courses in chemistry, mathematics, physics, and statistics and that in addition one unit of plane geometry is prerequisite to courses in mathematics and physics. In the instance of applicants who do not meet the above stated mathematics requirements, algebra and plane geometry may be taken without college credit when offered by the Department of Mathematics. For a statement of the foreign language requirements see page 55.

*Distribution of Units for the Premedical Curriculum.*—The several state medical boards govern the granting of licenses to practice; hence their requirements as to high school credits must be met exactly. The fifteen units required must include three in English, two in one foreign language, one in algebra, one in geometry, one in history, and one in science (biology, botany, chemistry, or physics). Eleven of the units offered must be in the above subjects.

### COLUMBIAN COLLEGE (THE SENIOR COLLEGE)

#### For the Bachelor's Degrees

Two years of Junior College work leading to the degree of Associate in Arts, or the lower-division work in institutions not organized on the



junior-senior-college plan, following a specified curriculum, meet the minimum requirements of Columbian College. In addition, however, scholarship requirements for admission may be set somewhat higher than those for graduation from the Junior College.

*Bachelor of Arts.*—An Associate in Arts degree based on the *Arts and Letters* curriculum in the Junior College, or the equivalent (see page 56), is required.

*Bachelor of Science.*—An Associate in Arts degree based on the *Science* curriculum in the Junior College, or the equivalent (see pages 56-57), is required.

#### For the Master's Degrees

An approved Bachelor's degree from an accredited higher institution is required. A student from an unaccredited institution may be admitted at the discretion of the Committee on Admission and Advanced Standing, but he will be required to take such extra work above the minimum requirements as may be prescribed. An appropriate distribution of courses and a superior quality of work in the major field are essential.

Applications for admission must be approved by the department or division and by the Dean.

*Master of Arts.*—The student's undergraduate curriculum must have included a program of study substantially equivalent to a major in his chosen field, together with an appropriate distribution of courses in other fields, or he must complete this prerequisite work in addition to that required for the Master's degree.

*Master of Science.*—The student's undergraduate curriculum must have included the equivalent of the undergraduate major of the scientific department under which he desires to work.

#### THE GRADUATE COUNCIL

*Doctor of Philosophy.*—The student must possess an adequate academic preparation for advanced study in the proposed field, as evidenced by approved Bachelor's and Master's degrees, or the equivalent, together with acceptable personal qualities and capacity for creative work.

#### THE SCHOOL OF MEDICINE

*Doctor of Medicine.*—Ninety credit hours of work, exclusive of physical education, in an accredited higher institution are required.

#### Specific Educational Requirements

##### SECONDARY SCHOOL REQUIREMENTS

Of the fifteen secondary school units required, three must be in English, two in one foreign language (ancient or modern), one in algebra,



one in geometry, one in history, and one in science (biology, botany, chemistry, or physics). Eleven of the units offered must be in English, foreign language, mathematics, science, and history.

#### PREMEDICAL COLLEGE REQUIREMENTS

##### NINETY CREDIT HOURS

1. Chemistry, sixteen credit hours as follows: (a) eight hours in general inorganic chemistry, of which at least four credit hours are laboratory work (qualitative analysis may be counted as general inorganic chemistry); (b) eight credit hours or a one-year college course of organic chemistry, including laboratory work.
2. Physics, eight credit hours, of which at least two credit hours are laboratory work. It is recommended that this course be preceded by one in trigonometry.
3. Biology, eight credit hours, of which at least four credit hours are laboratory work. This requirement may be satisfied by a course of eight credit hours in either general biology or zoology, or by four credit hours each in zoology and botany, but not by botany alone.
4. English composition and literature, six credit hours: the usual introductory college course or the equivalent. The student should develop facility in speaking and writing English.
5. Modern foreign language: a reading knowledge, preferably of French or German.
6. Electives. It is recommended that the remaining credit hours required include: (a) comparative vertebrate anatomy; (b) qualitative and quantitative chemical analysis; (c) social science and psychology.

#### Advanced Standing

A student who has satisfactorily attended one or two years at any other "class A" medical school, and who has the necessary preliminary educational requirements, may be admitted to advanced standing.

#### THE LAW SCHOOL

##### For the Degrees in the Professional Course

*Bachelor of Laws.*—A Bachelor's degree awarded upon completion of a four-year course in an approved college or university is required. All pre-legal work must be of a satisfactory quality and distribution. No student will be admitted who has been in attendance at another law school and who, because of poor scholarship, is on probation or is ineligible to return to that school. From the applicants fulfilling the basic requirement of a college degree, a selection will be made by the Committee on Admissions.

The Juris Doctor degree is conferred as a recognition of completion



with high rank of the full professional course, including experience in research and legal authorship. A student does not register as a candidate for this degree until his last year in the Law School.

#### ADVANCED STANDING

Advanced standing toward the degree of Bachelor of Laws may be granted only for work successfully completed in other Law Schools which are members of the Association of American Law Schools.

Advanced standing may not be granted for law work already counted toward the Bachelor of Arts or other pre-legal degree.

Students planning to attend summer school sessions at other law schools and desiring to use credits obtained at such schools in their course at this Law School must first have the courses they wish to take approved by the Dean. In no event will credits be recognized in excess of those which might be obtained in a similar period in this School.

Advanced standing toward the degree of Juris Doctor will not be granted.

#### For the Degrees in the Graduate Course

Candidates for graduate degrees must be accepted by the Committee on Graduate Studies.

*Master of Laws.*—A Bachelor of Arts or equivalent degree from an approved college or university and a Bachelor of Laws or equivalent degree from an approved law school are required. Candidates for admission must have attained an average grade on all work done for the Bachelor of Laws degree equivalent to the relative position of a *B* average in the standards of grading at this Law School, except that, in the discretion of the Committee on Graduate Studies, applicants otherwise eligible may be admitted on proof of experience and attainment as an alternative to the showing of a general average of *B* in the formal law school grades.

*Master of Comparative Law.*—The following are required: (1) the successful completion of and graduation from a course in arts, philosophy, letters, or sciences, equivalent to graduation from a gymnasium, lycee, or liceo (junior college); and (2) graduation in law from a recognized foreign university where training was in Civil Law.

*Doctor of Juridical Science.*—The following are required: (1) the degree of Juris Doctor from this Law School; or (2) the degree of Bachelor of Arts from an approved college, the degree of Bachelor of Laws or the equivalent, earned with high rank, from an approved law school, outstanding capacity for scholarly work in the field of law, and acceptance as a candidate by the Committee on Graduate Studies of the Law School.



### Unclassified Students

A person eligible for admission to regular standing but not a candidate for a degree may, at the discretion of the Dean, be admitted as an unclassified student.

A person who is in good standing as a candidate for a degree in another approved law school may, at the discretion of the Dean, be admitted as an unclassified student. Work taken by an unclassified student will not be accepted for credit toward a degree at this Law School.

### THE SCHOOL OF ENGINEERING

*Bachelor of Civil Engineering, Bachelor of Electrical Engineering, Bachelor of Mechanical Engineering, Bachelor of Science in Engineering.*

—An acceptable certificate of graduation from an accredited secondary school, or the satisfactory passing of College Entrance Board examinations in secondary school subjects selected with the approval of the Director of Admissions is required.

Nine and one-half of the fifteen units required for entrance must be distributed as follows: three in English, two in algebra, one in plane geometry, one-half in plane trigonometry, one in physics or chemistry, and two in one foreign language or history. A graduate of an approved high school who does not offer for admission the particular subjects required for the engineering curriculum, but who does present not less than fifteen acceptable units, may be admitted on condition, if such deficiency in the distribution of units does not exceed two units.

### ADVANCED STANDING

Advanced standing may be granted for work successfully completed at accredited institutions of higher learning. Credit will be assigned by the School of Engineering to the extent that the work taken at previous institutions meets the requirements for the degree sought at this University, and subject to the general University regulations concerning satisfactory subsequent work.

### THE SCHOOL OF PHARMACY

*Bachelor of Science in Pharmacy.*—An Associate in Arts degree based on the curriculum in *Pharmacy* in the Junior College (see page 57), or the equivalent is required.

A student who has received a Bachelor's degree from an accredited institution or who has completed work in the general cultural or foundational subjects of the pharmacy curriculum may be admitted to advanced standing. No more than one year of advanced standing will be granted a student from any institution other than an accredited college of pharmacy.



*Master of Science in Pharmacy.*—A Bachelor of Science degree from an accredited institution is required. A superior record and professional promise are essential.

#### THE SCHOOL OF EDUCATION

##### For the Bachelor's Degrees

*Bachelor of Arts in Education, Bachelor of Science in Home Economics, Bachelor of Science in Physical Education.*—An Associate in Arts degree based on the *Education, Home Economics, or Physical Education* curriculum in the Junior College (see pages 57-59), or the equivalent from another accredited higher institution, or a certificate of graduation from an approved normal school or the equivalent is required.

##### For the Master's Degree

*Master of Arts in Education.*—To be admitted to candidacy for the degree of Master of Arts in Education the applicant must: (1) hold a Bachelor's degree from an accredited institution; (2) have an undergraduate quality-point index of 2.50 or above (C + average); (3) have demonstrated a genuine interest in teaching; (4) be in possession of personality traits that give promise of better-than-average success as a teacher.

To be admitted to candidacy in programs designed to prepare for service in guidance and administration two years of successful teaching experience are prerequisite.

##### For the Doctor's Degree

*Doctor of Education.*—The degree of Master of Arts in Education or the equivalent, and at least three years of satisfactory educational experience are required.

#### THE SCHOOL OF GOVERNMENT

##### For the Bachelor's Degree

*Bachelor of Arts in Government.*—An Associate in Arts degree based on the *Accounting and Business Administration, Foreign Affairs, or Statistics* curriculum in the Junior College (see pages 59-60), or the equivalent, and a quality-point index of 2.00 for the first two years' work are required.

##### For the Master's Degree

*Master of Arts in Government.*—A Bachelor's degree from an accredited institution, or evidence of a course of study that is judged by the Faculty to be the equivalent is required. A student from an unaccredited institution may be admitted at the discretion of the Dean's Council, but he will be required to take such extra work above the minimum requirements as may be prescribed.



The Dean may permit deficiencies to be made up concurrently with work for the degree or by special examinations given under direction of a Faculty Committee. Students admitted to candidacy must have attained a quality-point index of 3.00 (a "B" average) in the courses of their undergraduate major. In special cases students who have not attained this scholastic average may take a qualifying examination with permission of the Dean.

#### THE DIVISION OF UNIVERSITY STUDENTS

Students 21 years of age or over who are not interested in working for a degree in this University may be considered for admission to the Division of University Students to take courses for which they have adequate preparation, as evidenced by previous scholastic records.

In special instances, with the permission of the instructor, a person may be considered for admission as an auditor in a class without being required to take active part in the exercises or to pass examinations, but no credit will be allowed for such attendance.

#### THE DIVISION OF SPECIAL STUDENTS

This is a non degree-granting division of the University in which the Director of Admissions may authorize the placement of students in the process of making up entrance deficiencies to degree-granting colleges and schools of the University.

Complete credentials must be submitted and evaluated before a tentative or definite plan of make-up may be prepared.

#### CLASSIFICATION OF STUDENTS

*Regular Students.*—Regular students are those who have met the entrance requirements for candidacy and are registered for degrees.

*University Students.*—Persons of mature age, as specified in the rules of the Division of University Students, may be admitted to this Division to pursue courses for which they have had adequate preparation.

*Special Students.*—Special students are those who are in the process of qualifying for admission to curricula in degree-granting colleges and schools of this University.

---

Additional information concerning curricula, courses offered, entrance requirements, or admission procedure may be obtained from the Office of the Director of Admissions.



## REGISTRATION

Before a student may be admitted to registration he must have satisfied the Office of the Director of Admissions that he is qualified for entrance to the University. (See "Admission", pages 11-19.)

A student who has previously matriculated in the University, but who has not been in attendance during the term prior to registration, should file an application for readmission in advance of registration.

Registration is for the term unless otherwise indicated on the registration paper. No registration is accepted for less than a term or one summer session.

A student may not register concurrently in The George Washington University and another institution without the permission of the dean of the college, school, or division in which he is registered in The George Washington University. Allowance of credit for work done concurrently will be at the discretion of the appropriate Committee on Admission and Advanced Standing.

### TIME AND PLACE OF REGISTRATION \*

Registration is conducted during the following periods: *fall term*, September 27, 28, and 29; *winter term*, February 1 and 2. Registration, except for the Law School, is conducted in Building C, 2029 G Street NW.; for the Law School, in Stockton Hall, 720 Twentieth Street NW.

### REGISTRATION CHANGES AND WITHDRAWALS

For regulations governing changes in registrations and withdrawals, see pages 23, 36-37.

\* Registration for the School of Medicine is conducted at the School of Medicine, 1335 H Street NW., between 11:00 A.M. and 5:00 P.M., September 14 and 15, 1950.



## FEES AND FINANCIAL REGULATIONS

By authorization of the Board of Trustees, the following fees have been adopted:

### TUITION FEES

For each credit hour for which the student registers (except work taken by a candidate for a Doctor's degree)*.....	\$12.00
For the degree of Doctor of Medicine, for two terms†.....	650.00
For the degree of Doctor of Philosophy:	
For work leading to and including the Council Fellowship examination§ .....	360.00
For work leading to and including the final examination§.....	360.00
For the degree of Doctor of Education:	
For work leading to and including the general examination§.....	360.00
For work leading to and including the final examination§.....	360.00
For the degree of Doctor of Juridical Science:	
For work leading to and including the final examination§.....	360.00

### ADDITIONAL COURSE FEES

In certain courses additional fees, such as laboratory and material fees, are charged as indicated in the course descriptions. These fees are charged by the term and, unless otherwise indicated, may be defrayed in three payments when the tuition is paid in this manner. Breakage of apparatus is charged against the individual student. When breakage is in excess of the normal amount provided for in the laboratory fee the individual student will be required to pay such additional charges as are determined by the department concerned.

### GRADUATION FEES

Wherein the degree of Associate in Arts is granted.....	\$10.00
Wherein a degree other than the Associate in Arts degree is granted .....	20.00

FEE FOR BINDING MASTER'S THESIS..... 4.00

FEE FOR THE PROFESSIONAL THESIS IN THE SCHOOL OF ENGINEERING.... 50.00  
An annual fee; one half payable in advance at the time of each registration.

FEE FOR PRINTING AND FILING SUMMARY OF DOCTORAL DISSERTATION.... 50.00

\* Payment of tuition for the thesis entitles the candidate, during the academic year of registration, to the advice and direction of the member of the faculty under whom the thesis is to be written. In case a thesis is unfinished, an additional successive academic year may be granted without further tuition payment. If the preparation of the thesis extends beyond the second academic year, it must be registered for again, and tuition paid on the same basis as for a repeated course.

† Registration in the School of Medicine is for a period of two terms. After the student has entered the course of instruction he is obligated for the full tuition for two terms. No part of the tuition will be refunded upon withdrawal or dismissal for any cause.

§ When a limited schedule is carried which extends the time of either the preparation period or the examination period to more than one year, the proportionate part of the charge may be fixed by the Comptroller.



## SPECIAL FEES

Application fee, charged all applicants for admission, non-refundable	\$3.00
Aptitude Test fee.....	1.00
Late-registration fee, charged each student who fails to register within the designated period.....	5.00
Withdrawal fee, charged each student who preregisters and withdraws prior to the regular registration.....	5.00
Service fee, charged each student for late payment of tuition (see "Payment of Fees").....	1.00
Reinstatement fee, charged each student who is reinstated after suspension for delinquency in fees.....	5.00
Residence fee, charged each student wishing to maintain "in residence" status during any term of absence from the University or after completion of tuition requirements.....	12.00
For special physical examination.....	2.00
Student Bar Association fee, charged each student in the Law School for each term or any part thereof except the summer term.....	2.00
For each examination to qualify for advanced standing and for each special examination .....	5.00
Laboratory checkout fee, charged all students in chemistry and pharmacy courses who fail to check out of the laboratory by the time set by the instructor.....	2.00

Registration in the University entitles each student to the following University privileges: (1) the issuance of three certified transcripts of record, if and when desired; (2) the services of the Placement Office; (3) the use of University library facilities, except as otherwise designated; (4) gymnasium privileges; (5) admission to all athletic contests, unless otherwise specified; (6) subscription to the *University Hatchet*, the student newspaper; (7) admission to University debates; (8) medical attention and hospital services as described under the Department of Health Administration. These privileges, however, with the exception of the issuance of transcripts, terminate, and a student is no longer in residence, when he withdraws or is dismissed from the University.

## PAYMENT OF FEES

All fees are payable at the Office of the Cashier, 725 Twenty-first Street NW. No student is permitted to complete registration or to attend classes until all fees are paid. Fees for each term are due and payable in advance at the time of registration.

In exceptional cases, subject to the approval of the Comptroller, the student may sign a contract for term charges, except for fees payable in advance, permitting payments as follows:

*Fall Term.*—One third at the time of registration; one third on November 3; one third on December 4.

*Winter Term.*—One third at the time of registration; one third on March 3; one third on April 3.



A student who fails to meet payments when due, but who pays his fees on or before the tenth of the month in which payment is due, is charged a service fee of \$1. A student who fails to meet payments by the tenth of the month in which payment is due will be automatically suspended and may not attend classes until he has been officially reinstated and has paid all accrued fees and a reinstatement fee of \$5.

A suspended student may not be reinstated for the term after two weeks from the date of suspension. Applications for reinstatement are to be made to the dean of the college, school, or division in which the student is registered.

An auditor pays all fees chargeable to the student registered for credit except the late-registration fee.

#### WITHDRAWALS AND REFUNDS

Application for withdrawal from the University or for change in class schedule must be made in person or in writing to the dean of the college, school, or division in which the student is registered. Notification to an instructor is not an acceptable notice (see "Withdrawal", pages 37 and 38).

In authorized withdrawals and changes in schedules, financial adjustments will be made as follows:

*Fall Term.*—Withdrawal dated on or before October 31, cancellation of two-thirds of tuition charges; withdrawal dated on or before November 30, cancellation of one-third of tuition charges. No refund or reduction will be allowed on a withdrawal dated subsequent to November 30.

*Winter Term.*—Withdrawal dated on or before February 28, cancellation of two-thirds of tuition charges; withdrawal dated on or before March 31, cancellation of one-third of tuition charges. No refund or reduction will be allowed on a withdrawal dated subsequent to March 31.

In no case will a refund be made of the first third of the total tuition charges unless the registration is in advance and the course is dropped before the regular registration day. In this case a withdrawal fee of \$5 is charged and tuition fees refunded. In no case will tuition be reduced or refunded because of nonattendance upon classes.

Payment applies only to the term for which a registration charge is incurred and in no case will this payment be credited to another term.

Any student in chemistry who fails to check out of the laboratory on or before the date set by the instructor, unless excused by the instructor, will be charged a checkout fee in the amount of \$2. A student who drops a course before the end of the term must check out of the laboratory at the next regular laboratory period.

Authorization to withdraw and certification for work done will not be given a student who has not a clear financial record.



## FELLOWSHIPS, SCHOLARSHIPS, PRIZES, FINANCIAL AID

### FELLOWSHIPS

The following fellowships are available to graduate students. Applications should be submitted for consideration not later than April 1 preceding the period for which the fellowship is to be awarded.

The applicant for a University Teaching Fellowship or a Special Fellowship is expected to be a prospective candidate for the degree of Doctor of Philosophy, and to have the Master of Arts degree, or the equivalent, in the general field of his future doctoral study and research. Forms on which to make application for these fellowships may be obtained from the Chairman of the Graduate Council.

*University Teaching Fellowships.*—These are assigned for the academic year 1950-51 in the following departments of instruction: Bacteriology, Biochemistry, Botany, Chemistry, Economics, English, History, Physics, Psychology, Romance Languages, and Statistics. Each fellow receives an annual stipend, plus full tuition in the Graduate Council for whatever schedule of study or research his fellowship duties permit him to carry. The occupant of each of these fellowships renders a designated unit of service to the department of instruction in his major field of doctoral study, usually in classroom or laboratory assignments.

*Special Fellowships.*—A number of special fellowships are supported by endowment, and are awarded to doctoral students of unusual promise and ability. The stipend is not fixed but varies in amount with the need of the individual receiving the award. In applying for one of these fellowships it is advantageous that the student appear personally for an interview with the Chairman and such other members of the Graduate Council as would be interested in the research investigations proposed. These fellowships include the following:

*Isabella King Research Fellowship.*—Of the value of \$1,200 annually, offered in the general field of biology, and intended to foster research for which the libraries and scientific establishments in Washington provide special facilities.

*Thomas Bradford Sanders Fellowships.*—Established by Miss Addie Sanders in memory of her brother, Thomas Bradford Sanders, and offered in various academic fields of study, with stipends designated by the Chairman of the Graduate Council.

*Soroptimist Fellowship.*—This fellowship of \$750 was established in 1948 by the South Atlantic Region of the American Federation of



Soroptimist Clubs, an international organization of executive business and professional women. It is available to a woman who holds a baccalaureate degree and who wishes to undertake graduate work to prepare herself for professional service. Selection of the candidate will be based upon the personal and academic qualifications of the applicant. Application should be addressed to the Registrar of the University.

### SCHOLARSHIPS

Scholarships are awarded for two terms unless otherwise specified and are credited in equal parts for each term. Each holder must carry a full schedule of academic work (fifteen credit hours or in the professional schools the full prescribed schedule) during the period for which the scholarship is awarded. Except in the case of the High School Scholarships, the Student Activities Scholarships, the Trustee Scholarships, the National League of Masonic Clubs Scholarship, and the National Society of Arts and Letters Scholarship, applicants must have established an academic record in courses at this institution, and should apply on prescribed forms which must be filed in the Office of the Chairman of the Committee on Student Loans and Scholarships not later than May 1 preceding the academic year for which the scholarship is to be awarded. Further information may be obtained from the Chairman of the Committee on Student Loans and Scholarships.

*Byron Andrews Scholarship.*—This scholarship, in the amount of \$150, established in 1920 by Mrs. Belle Fisk Andrews in memory of her husband, Byron Andrews, is available "for ambitious and needy students, who desire to pursue courses in English, Latin, journalism, history, literature, or political science".

*Anna Bartsch Scholarship.*—This scholarship, in the amount of \$500, established in 1946 by Dr. Anna Bartsch-Dunne, as a memorial to her mother, Anna Bartsch, is awarded annually to a woman in the School of Medicine, "of outstanding scholarship, character, and promise, who intends to make the practice of medicine her life profession". The award is made upon the recommendation of the Faculty of the School of Medicine.

*Emma K. Carr Scholarships.*—Five scholarships in the amount of \$360 each and seven in the amount of \$100 each, established in 1932 by Mrs. Emma K. Carr, are awarded annually to "young men (of the white race) for undergraduate or postgraduate work, considering character, capacity, and need".

*Henry Harding Carter Scholarship.*—This scholarship, established in 1896 by Mrs. Maria M. Carter in memory of her husband, Henry Harding Carter, is of the annual value of \$360 and is awarded to a deserving student who is preparing for the civil-engineering profession.



*Maria M. Carter Scholarship.*—This scholarship, in the amount of \$50 to be awarded annually to a young man, was given to the University in 1871 by Mrs. Maria M. Carter.

*Isaac Davis Scholarship.*—This scholarship, in the amount of \$50 to be awarded annually, was given to the University in October 1869 by the Honorable Isaac Davis, of Massachusetts. Nominations for the scholarship may be made "by the founder or his eldest lineal descendant". In case no such nomination is made, the scholarship is to be awarded by the University.

*Charles Worthington Dorsey Memorial Scholarship.*—This scholarship, established as a memorial to Charles Worthington Dorsey, Bachelor of Laws, '81, Master of Laws, '82, is awarded upon the recommendation of the Faculty of the Law School to a needy and promising graduate of Columbian College or other division of the University, with a Bachelor of Arts or other equivalent degree, who has maintained an average of *B* as an undergraduate student and who desires to pursue the study of law as a full-time student. The scholarship covers tuition for the course leading to the first degree from the Law School, Bachelor of Laws or Juris Doctor, provided that the holder maintains an average of *B*. The right is reserved to suspend the benefits of the scholarship for cause at any time. The scholarship is awarded ordinarily once every three years.

*Robert Farnham Scholarship.*—This scholarship, in the amount of \$50 to be awarded annually to a student in Columbian College, was given to the University in 1871 by Mrs. Robert Farnham.

*Anna Spicker Hampel Scholarship.*—This scholarship, in the amount of \$20, established in 1949 by Mrs. Evelyn Hampel Young, is available for scholarship aid to young married women students in the School of Education or Columbian College.

*Elma Lewis Harvey Scholarship.*—This scholarship, of the annual value of \$100, was founded in 1921 by Mrs. Emma Elizabeth Harvey in memory of her daughter, and is to be awarded every four years, or as often as vacant, to a young woman student in Columbia College of the Protestant faith and of the Caucasian race who shall be selected for scholarship and moral qualifications.

*High School Scholarships.*—For rules governing the award of scholarships available to high school students, see the special bulletin.

The holders of these scholarships are exempt from tuition fees, but are charged laboratory, graduation, and other fees. The scholarships are valid for four academic years of undergraduate study. The principal, or, if the principal declines, the alternate, must register in September following the award.

To retain any high school scholarship a student must carry a full program of study in the liberal arts (a full program being defined as at



least fifteen hours of work each term). An average of *B* and a high standard of deportment must be maintained. Scholarships are reassigned annually. After registering, the holder of a high school scholarship is expected to complete four academic years in the University. If he fails to continue its use, the scholarship will not be reassigned.

*A. Morehouse Scholarship.*—This scholarship was established by Mr. A. Morehouse in 1861. It carries an annual stipend of \$100, which is available for an undergraduate "intending to enter the Christian ministry".

*The National League of Masonic Clubs Scholarship.*—This four-year scholarship, in the amount of \$400 annually to be applied toward payment of tuition costs only, is offered by the National League of Masonic Clubs to the son or daughter of a Master Mason. To continue to hold the scholarship, the student must maintain a satisfactory academic record.

*National Society of Arts and Letters Scholarship.*—An annual scholarship in the amount of \$200 is offered by the Washington Chapter of the National Society of Arts and Letters to a junior or senior majoring in drama.

*Newspaper Scholarships.*—Four scholarships are to be awarded each year to candidates recommended by the following newspapers: *The Washington Daily News*, *The Washington Post*, *The Evening Star*, and *The Times-Herald*. These scholarships cover tuition for four years, but do not include laboratory fees, graduation fees, or other special fees.

*Paul Pearson Scholarship.*—This scholarship, established in 1940 by bequest of Paul Pearson and "to be known as the Dr. Paul Pearson award", is in the amount of \$125 to be awarded annually to a student in the School of Pharmacy, upon the recommendation of the Faculty of that School.

*Lula M. Shepard Scholarship.*—This scholarship, established in 1946 by bequest of Lula M. Shepard, is in the amount of \$360 and is awarded annually to a "worthy Protestant student desiring to enter the Foreign Service Department of the School of Government".

*David Spencer Scholarship.*—This scholarship of \$150 was established in 1918 by Miss Louisa J. Spencer.

*Mary Lowell Stone Scholarship.*—This memorial scholarship, established in 1893 is in the amount of \$100, and is awarded annually to a woman student of science in Columbian College.

*Student Activities Scholarships.*—The University has established a limited number of Activities Scholarships for men, which will be awarded to approved applicants therefor by the Faculty Committee on Student Loans and Scholarships upon the basis of (1) need, (2) good character, (3) demonstrated aptitude for leadership, and (4) scholarship of the applicant.



Such scholarships are granted for one academic year. They may be continued, however, upon the basis on which they were granted. Recipients of Activities Scholarships must maintain the required scholastic average of the school or division in which they are registered.

The time for filing applications for Activities Scholarships and the terms of such scholarships may be ascertained by inquiry at the office of the Chairman of the Committee on Student Loans and Scholarships.

*Charles Clinton Swisher Scholarship.*—This scholarship, established in 1941 by the late Professor Charles Clinton Swisher, is in the amount of \$360 and is awarded annually to a student of medieval history.

*Trustee Scholarships.*—Five scholarships are awarded each year, upon the recommendation of regional alumni clubs, to outstanding male graduates of accredited high schools. The scholarships cover tuition costs for four terms of full-time work but do not include special fees such as laboratory charges, room, board, or other expenses. To retain the scholarship, the student must maintain a *B* average. Additional information may be obtained from the Alumni Secretary.

*William Walker Scholarship.*—This scholarship was established in 1824 by William Walker, Esq. It carries an annual stipend of \$150, which is available for an undergraduate intending to enter the Christian ministry.

*John Withington Scholarship.*—This scholarship was established in 1830 by the New York Baptist Theological Seminary. It has an annual stipend of \$100.

*Ellen Woodhull Scholarship.*—This scholarship, established by the late Ellen M. E. Woodhull, is in the amount of \$30, and is awarded annually to a student in Columbian College.

*The Zonta Club of Washington, D. C., Scholarship.*—This scholarship, in the amount of \$200, offered by the Zonta Club of Washington, D. C., will be awarded annually to a woman who is a senior or graduate student with special interest in a professional or business career.

#### THE COLUMBIAN WOMEN SCHOLARSHIP FUNDS

The Columbian Women Scholarships are awarded by the Scholarship Committee of the Columbian Women. Applications for these scholarships should be addressed to the Chairman of the Scholarship Committee, the Columbian Women, The George Washington University, Washington 6, D.C., not later than May 15 preceding the academic year for which the scholarship is to be awarded; or, in the case of award for the winter term, not later than January 1.

*Nellie Maynard Knapp Scholarship Fund.*—The income from this fund of \$5,000, established in 1915 in memory of a former president, Mrs. Martin A. Knapp, is available for scholarships for women.



*Founders of Columbian Women Scholarship Fund.*—The income from this fund of \$5,000, established in 1920, is available for scholarships.

*Lillian Young Herron Scholarship Fund.*—The income from this fund of \$5,000, established in 1925 and named in 1930 in memory of a former president, is available for scholarships.

*Elizabeth V. Brown Scholarship Fund.*—This fund of \$1,200 was established in 1925 by the College Women's Club of Washington, D.C., in memory of the late Elizabeth V. Brown. The income is available for a scholarship for a woman student in the School of Education.

*College Women's Scholarship Fund.*—The income from this fund of \$500, established in 1926 through the courtesy of the College Women's Club of Washington, D.C., is available for scholarship aid.

*Lewes D. and Myrtie H. Wilson Memorial Scholarship Fund.*—This fund of \$1,000 was established by Miss Elizabeth Wilson in 1926 as a memorial to her parents, Lewes D. and Myrtie H. Wilson. The income is available for a scholarship in the School of Medicine.

*Grace Ross Chamberlin Scholarship Fund.*—The income from this fund of \$2,300, established in 1932 in honor of a former president, is available for scholarship aid.

# PRIZES

*Alpha Chi Sigma Prizes.*—Alpha Pi Chapter of Alpha Chi Sigma Fraternity offers annually the following prizes:

A "Handbook on Chemistry and Physics" is awarded to each of the three students who carry at least eighteen credit hours during the freshman year and attain the highest averages in freshman chemistry.

The name and year of graduation of the student who has attained the highest quality-point index in courses in chemistry will be inscribed on a bronze plaque. The winner of this award must have had at least sixteen hours of chemistry including the final term at The George Washington University.

*Alpha Delta Pi Prize.*—Alpha Pi Chapter of Alpha Delta Pi Fraternity offers an annual prize of \$10 to the woman member of the junior class with the most outstanding record in scholarship, extra-curricular activities, and service to the University.

*Alpha Kappa Psi Prize.*—Beta Mu Chapter of Alpha Kappa Psi Fraternity awards annually a key to the male student who has completed ninety credit hours at The George Washington University and has attained the highest average grade of the students enrolled in economics, business administration, public accounting, public finance, and foreign commerce.

*American Institute of Chemists Prize.*—The District of Columbia



Chapter of the American Institute of Chemists offers an annual prize of a medal and junior membership in the American Institute of Chemists to that graduating student, majoring in chemistry, who excels in scholarship and in the personal qualities of integrity and leadership.

*Byrne Thurtell Burns Memorial Prize.*—This prize, in the amount of \$50, is awarded to the senior majoring in chemistry who shows the greatest proficiency in organic chemistry, as evidenced by a comprehensive examination, and who possesses such qualifications of mind, character, and personality as to give promise of future achievement.

*Chi Omega Prize.*—Phi Alpha Chapter of Chi Omega Fraternity offers annually a prize of \$25 to be awarded to the woman student in the graduating class with the highest record in the following social sciences: economics, sociology, political science, and history; combined with general excellence.

*John Henry Cowles Prizes.*—These prizes, founded in 1943 by John H. Cowles, Grand Commander of the Supreme Council of the Thirty-third Degree (Mother Council of the World) of the Ancient and Accepted Scottish Rite of Freemasonry, Southern Jurisdiction of the United States of America, are awarded annually to the two best scholars in the senior class of the School of Government. The prizes are as follows: first prize, \$80; second prize, \$40.

*DeWitt Clinton Croissant Prize.*—This prize, established by the late Professor DeWitt Clinton Croissant, consists of \$45, which is awarded annually to the undergraduate student who as a member of one of the University courses in drama or as a participant in University dramatics submits to the English Department the best essay on drama or the theatre.

*E. K. Cutter Prize.*—The E. K. Cutter Prize in English was established by the late Marion Kendall Cutter "for excellence in the study of English." An annual prize of \$45 is awarded to the member of the graduating class whose record in English, combined with general excellence, shows most marked aptitude for and attainment in English studies.

*Daughters of the American Revolution Prize.*—This prize, established by the Daughters of the American Revolution of the District of Columbia, consists of \$15, which is awarded annually to the student who, having maintained a record of distinction in American history, submits the best essay upon a topic in the period of the American Revolution.

*Isaac Davis Prizes.*—These prizes, established by the Honorable Isaac Davis, of Massachusetts, in 1847, are awarded annually to such members of the senior class as shall have made the greatest progress in public speaking during their connection with the University. The prizes are as follows: first prize, \$20; second prize, \$15; third prize, \$10.

The award of these three prizes is determined by a public-speaking



contest in which the participants deliver original orations. Only members of the senior class who are candidates for the degree of Bachelor of Arts or Bachelor of Science are eligible to compete.

*Delta Gamma Prize.*—The District of Columbia Alumnae Chapter of Delta Gamma offers annually a prize of \$25, to the woman in the graduating class who has achieved the highest scholastic average in her four-year college course.

*Delta Zeta Prize.*—Delta Zeta Sorority offers annually a prize of \$10, to be awarded to the student maintaining the highest average in Zoology 1-2.

*Ellsworth Prize.*—The Ellsworth Prize of \$25, established by the late Mr. Fritz von Briesen, is awarded to the student doing the best work in the subject of Patent Law Practice.

*Elton Prize.*—The Elton Prize, established by the Reverend Romeo Elton, of Exeter, England, consists of \$15, awarded annually to the senior student having the highest average in the Greek language and literature.

*Jesse Frederick Essary Prize in Journalism.*—This memorial prize in the amount of \$100, established in 1948 by Helen Essary Murphy, is awarded annually to a student who has given promise of sound citizenship and ability in "forthright reporting" in student publication and/or under the jurisdiction of the Department of Journalism. The selection of the recipient will be made by a committee composed of the President of the University and two members of the faculty.

*Joshua Evans III Prize in the Political and Social Sciences.*—This memorial prize in the amount of \$50, "established by friends because of an outstanding life", is awarded annually to that man in the graduating class of The George Washington University "who has demonstrated his signal ability in the social and political sciences and who has given promise of the interpretation of that ability in good citizenship among his fellows". The selection of the recipient will be made by the President of the University and a committee from the Faculty of the Division of the Social Sciences.

*Willie E. Fitch Prize.*—The Willie E. Fitch Prize established in 1883 by James E. Fitch, Esq., in memory of his son, consists of \$50, which is awarded annually to a senior student for the best examination in chemistry.

*Alice Douglas Goddard Prize.*—This prize of \$60 was established in 1941 by Frederick Joseph Goddard of Georgetown, D.C., in memory of Alice Douglas Goddard, and is awarded annually to the upper division student making the highest average in American literature.

*Edward Carrington Goddard Prize.*—This prize, consisting of \$60, was established in 1923 by Mary Williamson Goddard, Alice Douglas



Goddard, and Frederick Joseph Goddard, of Georgetown, D.C., in memory of Edward Carrington Goddard, class of '81, and is awarded to the junior or senior student making the highest average in the French language and literature.

*James Douglas Goddard Prize.*—This prize, consisting of \$60, was established in 1923 by Mary Williamson Goddard, Alice Douglas Goddard, and Frederick Joseph Goddard, of Georgetown, D.C., in memory of James Douglas Goddard, class of '01, and is awarded to the senior student making the highest average in pharmacy.

*Morgan Richardson Goddard Prize.*—This prize, consisting of \$60, was established in 1923 by Mary Williamson Goddard, Alice Douglas Goddard, and Frederick Joseph Goddard, of Georgetown, D.C., in memory of Morgan Richardson Goddard, and is awarded to the junior or senior student making the highest average in the following fields: economics, business administration, foreign commerce, and public accounting.

*Gardiner G. Hubbard Memorial Prize in United States History.*—This prize of \$50 was established by Mrs. Gertrude M. Hubbard in memory of her husband, the late Gardiner G. Hubbard, and is awarded annually to that member of the graduating class majoring in history who has maintained the highest standing in courses in United States history.

*Kappa Kappa Gamma Prize.*—Kappa Kappa Gamma Sorority offers annually a prize of \$10 to the full-time freshman who achieves the best record in Botany 1 and 2.

*John Bell Larner Prize.*—This prize, established by the bequest of John Bell Larner, consists of a medal which is awarded annually to that member of the graduating class in the Law School who attains the highest average grade in the entire course for the degree of Bachelor of Laws.

*Mortar Board Prize.*—This prize, consisting of a silver cup, is awarded annually to the woman student in the sophomore class having a scholarship average of *B* or higher and the most outstanding record in activities.

*Omicron Delta Kappa Prize.*—Alpha Delta Circle of Omicron Delta Kappa Fraternity offers annually a plaque to be awarded to "that member of the senior class (of Columbian College) who throughout his course has done the most constructive work in the furtherance and upbuilding of the University student activities".

*John Ordronaux Prizes.*—These prizes were established in 1909 by the bequest of John Ordronaux.

The amount of \$100 is awarded to the member of the graduating class in the School of Medicine who has the highest scholastic standing.

The amount of \$50 is awarded annually to the student in the Law



School who has attained the highest average grade in the first year, full-time course; and \$50 to the student who has attained the highest average grade in the second-year, full-time course.

*Phi Eta Sigma Prize.*—The George Washington University Chapter of Phi Eta Sigma offers each year to the male student attaining the highest scholastic average in his first full term of work, a choice book selected from the field of the recipient's major interest. The winner's name will be engraved on a plaque in the Office of the Dean of the Junior College.

*Phi Sigma Kappa Prize.*—Phi Sigma Kappa Fraternity offers annually a silver cup to the winner of an oratorical contest, open to all freshmen.

*Pi Beta Phi Prize.*—A prize of \$20 is awarded annually by the District of Columbia Alpha Chapter of Pi Beta Phi Fraternity to that woman member of the senior class who throughout her college course has done the most constructive work in the promotion of student activities among the women of the University.

*Ruggles Prize.*—The Ruggles Prize, established by Professor William Ruggles in 1859, consists of \$25 awarded annually to a candidate for a baccalaureate degree for excellence in mathematics.

*Sigma Kappa Prize.*—Zeta Chapter of Sigma Kappa Sorority offers an annual prize of \$10 to the student with the highest grade in the final examination in General Chemistry.

*Sigma Tau Prize.*—Xi Chapter of Sigma Tau Fraternity offers annually a medal to be awarded to that member of the freshman class in the School of Engineering who maintains the highest scholastic standing in the work of the entire year.

*Staughton Prize.*—The Staughton Prize, established by the Reverend Romeo Elton, consists of \$15 awarded annually to the senior student making the best record in the Latin language and literature.

*James MacBride Sterrett, Jr., Prize.*—This prize, established in 1911 by Professor James MacBride Sterrett in memory of his son, consists of books awarded annually to that student who obtains the highest average in Physics 6, 7, and 8.

*Charles Clinton Swisher Historical Club Prize.*—This prize, established in 1936 by the Charles Clinton Swisher Historical Club and augmented in 1941 by the bequest of the late Professor Charles Clinton Swisher, is an annual prize of \$60 awarded to the student who submits the best essay covering some phase of medieval history.

*Theta Tau Activities Plaque.*—Gamma Beta Chapter of Theta Tau Fraternity offers annually a plaque to be awarded to that member of the senior class who has the most outstanding record in activities in the School of Engineering during the entire period of his attendance.

*United Daughters of the Confederacy Prize.*—This prize, established



in 1946 by the General Lewis A. Armistead Chapter, number 2136, United Daughters of the Confederacy, consists of \$25, which is awarded annually to the student showing the greatest proficiency in the history of the Southern States.

*Thomas F. Walsh Prize.*—This prize, established in 1901 by Thomas F. Walsh, consists of \$60 awarded annually to that student who submits the best essay in Irish history.

*Alexander Wilbourne Weddell Prize.*—From a fund established in 1923 by Mrs. Virginia Chase Weddell, an annual prize of \$250 is awarded to a candidate for a degree who writes the best essay on the subject of "the promotion of peace among the nations of the world". The prize essays shall become the property of the University and shall not be printed or published without the written consent of the University. The University reserves the right to withhold the award if no essay attaining the required degree of excellence is submitted.

## FINANCIAL AID

### INTERNSHIP

In memory of her mother, Anna Bartsch, Dr. Anna Bartsch-Dunne established in 1946 a fund to aid in the support of an internship. This aid, in the amount of \$15 a month, is awarded annually to a woman holding an internship in the University Hospital.

### LOAN FUNDS

The following loan funds are available to students in the University in accordance with the qualifications placed thereon by the donors. Inquiries should be directed to the Office of the Comptroller.

*University Loan Fund.*—The Trustees of The George Washington University have established a loan fund amounting to \$10,000.

*Daughters of the American Revolution Loan Fund.*—The District of Columbia Chapters of the Daughters of the American Revolution have established an endowment fund of \$5,000, the income (\$2,865.41) of which is available for loans to descendants of patriots of the American Revolution.

*Home Economics Loan Fund.*—This fund in the amount of \$352.35, contributed by the D. C. Home Economics Association, is available for loans to senior girls majoring in Home Economics.

*Kellogg Medical School Loan Fund.*—The W. K. Kellogg Foundation in Battle Creek, Michigan, has established a fund in the amount of \$16,345.20 for loans to students in the School of Medicine.

*Knights Templar Educational Loan Fund.*—This fund, contributed and administered by the Grand Commandery of Knights Templar of



the District of Columbia, is available for loans to students, preferably in the upper classes, who are residents of the District of Columbia

*Law Association Loan Fund.*—The George Washington Law Association has established a loan fund in the amount of \$769.73 for loans to students in the Law School.

*Henry Strong Educational Foundation.*—The Henry Strong Educational Foundation, established at Chicago under the will of General Henry Strong, makes available a fund for loans to both men and women students under the age of twenty-five years.

*Henry Strong—William A. Maury Loan Fund.*—This fund, also allocated from the funds of the Henry Strong Educational Foundation, is to be loaned to students under the age of twenty-five years in the George Washington University Law School.

*Sutherland Medical School Loan Fund.*—This fund, in the amount of \$1,200 and established by Mrs. Rose L. Sutherland, is available for loans to students in the School of Medicine.



## REGULATIONS

A student enrolled in the University is required to conform to the University regulations and to comply with the rules and regulations of the college, school, or division in which he is registered.

A student who withdraws or is suspended, or is otherwise absent from the University for one term or more, may re-enter and continue his work only under the rules and regulations in force at the time of his return.

If a student knowingly makes a false statement or conceals material information on an application for admission, registration card, or any other University document, his registration may be canceled and he will be ineligible (except by special action of the Faculty) for subsequent registration in any unit of the University.

## ATTENDANCE

A student is not permitted to attend classes until registration has been completed and fees due have been paid. Regular attendance is required. A student may be dropped from any course for undue absence.

A student who has been suspended, either for delinquency in payment of fees or for any other reason, is not permitted to attend classes during the period of suspension.

For further regulations regarding attendance, consult the announcements of the several colleges and schools.

## SCHOLARSHIP REQUIREMENTS

A student who fails to maintain the scholarship requirements of the college, school, or division in which he is registered may be dismissed from the University.

## GRADES

Grades are not given out by instructors but are mailed to the student through the office of the Registrar at the close of each term. Upon request, a copy of the student's grades will be forwarded to his parent or guardian.

The following grading system is used: excellent, *A*; good, *B*; average, *C*; passing, *D*; failing, *F*. Whenever a grade has not been assigned, the symbol *Inc.* (incomplete) or the symbol *W* (authorized withdrawal) will be recorded. The symbol *Inc.* is a sign temporarily to indicate that all the required work of the course has not been completed and a satisfactory explanation has been given to the instructor. An "incomplete" can not be made up after the lapse of one calendar year except by permission



of the Faculty. Courses from which a student has withdrawn by proper authorization will be indicated by the symbol *W*. No student may repeat for grade a course in which he has received a grade of *D* or above, unless required to do so by the department concerned.

For graduate work, grades are indicated as "satisfactory", "unsatisfactory", or "incomplete".

For the grading systems of the Law School and the School of Medicine, see the explanations in the announcements of those schools.

#### QUALITY-POINT INDEX

Quality points are computed from grades as follows: *A*, four points; *B*, three points; *C*, two points; *D*, one point; *F*, no points, for each credit hour for which the student has registered.

Scholarship is computed in terms of the quality-point index, obtained by dividing the number of quality points by the number of credit hours for which the student has registered, both based on the complete collegiate record. Courses marked *W* or *Inc.* are not considered in determining the index, except that courses marked *Inc.* will be considered when a formal grade is recorded, or at the close of a calendar year, whichever occurs first. If an "incomplete" is not superseded by a proper grade within the allotted time, it is computed as zero quality points. Grades in courses taken at another institution are not considered in computing the quality-point index.

#### EXAMINATIONS

Examinations are scheduled in all courses at the end of each term or at the completion of the course.

A student guilty of dishonesty in examinations is subject to the regulations of the faculty under which he is registered.

For further regulations regarding examinations, consult the announcements of the several colleges, schools, and divisions.

#### WITHDRAWAL

Withdrawal from a course or from the University, *without academic or financial penalty*, requires the permission of the dean of the college, school, or division in which the student is registered. Permission to withdraw from the University will not be granted a student who has not a clear financial record. (See "Fees and Financial Regulations", pages 21-23.)

Withdrawal between October 31 and the end of the fall term and between February 28 and the end of the winter term is permitted only in exceptional cases.



*All charges for courses dropped without the approval of the dean must be met by the student. Reporting the dropping of a course to an instructor does not effect its discontinuance.*

#### CHANGES IN PROGRAM OF STUDIES

A student may not change or drop (see "Withdrawals", above) courses or change his status to that of auditor except with the approval of the dean of the college, school, or division in which he is registered, upon presentation of adequate reasons for such changes.

Change from one section to another of the same course or from one major subject to another within the same college or school may be made with the approval of the dean. All requirements specified in the course of study to which the change is made must be satisfied before graduation.

Transfer from one college, school, or division to another may be made only with the approval of the deans concerned. Applications for such change should be made on the proper form, obtainable in the Office of the Director of Admissions, where it should be filed.

#### CREDIT

Credit toward a degree is given only after regular registration for and satisfactory completion of the required work of classes in the University, or upon the granting of advanced standing in accordance with the regulations of the several colleges, schools, and divisions.

On request the Registrar will issue to the student a balance sheet showing the amount of work completed and the amount necessary to complete the requirements for a degree.

In special instances, a person who has been admitted to the University may be registered, with the permission of the instructor, as an "auditor" in a class. An auditor is not required to take active part in the exercises or to pass examinations, but no credit will be allowed for such attendance.

#### TRANSCRIPTS OF RECORD

Official transcripts of student records will be forwarded on request to other institutions. Unofficial copies of records will be issued to the student on request. No charge is made for the first three transcripts; a fee of one dollar is charged for each one thereafter. No certificate of work done will be issued for a student who does not have a clear financial record.

#### SUMMER SCHOOL CREDIT

A student who plans to attend summer school sessions at another institution with the intention of having credits so obtained apply toward graduation from this University must first secure the written approval of



the dean of his college or school. In no event will such credits be recognized to an amount in excess of that which might be earned in a similar period in this institution.

#### PHYSICAL EDUCATION REQUIREMENTS

Students in the Junior College and freshmen and sophomores in the School of Engineering are required to take Physical Education 1-2 and 11-12 unless they are registered for less than 9 credit hours or unless regular employment during the day makes it necessary to take all classes during the evening hours.

Any other exemptions will be granted only upon written petition which has been recommended by the physical education department concerned and approved by the dean of the college or school in which the student is registered.

A student entering the University with advanced standing is not exempt from the physical education requirements unless he has satisfactorily met the requirements elsewhere. Courses in military training are not accepted in satisfaction of these requirements.

The required medical and physical examinations, as specified by the departments of physical education, will be arranged at the time of registration.

#### GRADUATION REQUIREMENTS

To be recommended for graduation a student must have met the admission requirements of the college or school in which he is registered, completed satisfactorily the scholarship, curriculum, residence, and other requirements for the degree for which he is registered, and be free from all indebtedness to the University.

*Application for Graduation.*—Application for a degree should be filed in the Office of the Registrar at the time of registration for the first term of the senior or final year and may not be filed later than the date specified in the University calendar.

*Scholarship.*—In all undergraduate divisions of the University the scholarship requirement for graduation is a quality-point index of at least 2.00.

The graduate student must meet the scholarship requirements for the particular degree for which he is registered.

*Curriculum.*—Curriculum requirements for each degree are stated under the college or school offering work in preparation for the degree.

*Residence.*—In all undergraduate divisions of the University (except the Junior college where fifteen credit hours are ordinarily required) a minimum of one year, or thirty credit hours, must be completed in residence. Summer term work may be counted in residence, but in no case may the period of residence aggregate less than thirty weeks. Unless



special permission is granted by the dean of the college or school concerned to pursue work elsewhere, the work of the senior or final year must be completed in residence.

The graduate student must meet the residence requirements for the particular degree for which he is registered.

With the permission of the dean of the college, school, or division concerned, a student may be granted leave of absence; such student should, however, remain technically in residence by paying the residence fee for each term he is absent. For the purpose of this regulation, the summer sessions will not be considered a term.

*Attendance and Conduct.*—The University reserves the right to refuse to confer a degree upon a candidate whose attendance or conduct has been unsatisfactory.

*Thesis or Dissertation.*—A thesis or dissertation submitted in partial satisfaction of requirements for the Master's degrees, the professional degrees in engineering, the degree of Doctor of Education, the degree of Doctor of Juridical Science, or the degree of Doctor of Philosophy must be presented in its final form to the dean of the college or school concerned not later than the date specified in the University calendar. Three\* copies of each thesis or dissertation are required, one typewritten original and two legible and complete carbon copies. Detailed instructions for the styling of all theses and dissertations should be obtained from the appropriate dean.

Accepted theses or dissertations, with accompanying drawings, become the property of the University and are deposited in the University Library, where the duplicate copies are bound and made available for circulation. Permission to publish or adapt material in the thesis or dissertation must be secured from the appropriate faculty.

*Presence at Graduation.*—A candidate is required to be present at the graduation exercises unless written application for graduation in absentia is approved by the dean of his college or school.

#### HONORS

*With distinction.*—In all undergraduate divisions of the University the degree may be conferred "with distinction", at the discretion of the Faculty, if a student attains a quality-point index of 3.50 or higher on all work taken at this institution except that taken during the term immediately preceding the granting of the degree. To be eligible for this honor a student must have completed at this institution at least one-half of the work required for the degree.

In the School of Medicine and the Law School, degrees may be conferred "with distinction", at the discretion of the Faculty, on those students who attain an average of *A* on all work taken for the degrees.

\* In the School of Education, four copies.



*Special honors.*—Special honors may be awarded by the Faculty to any member of the graduating class for outstanding achievement in the student's major field of work on recommendation of the major department, under the following regulations:

1. The student must have his candidacy for special honors approved by the faculty member representing the major department or field not later than the beginning of the senior year.
2. The student must meet such other conditions as may be set at the time his candidacy is approved.
3. No student will be awarded special honors unless he has a quality-point index of at least 3.00 on all work taken at this institution except that taken during the term immediately preceding the granting of the degree.
4. To be eligible for honors a student must have completed at this institution at least one-half of the work required for the degree prior to the beginning of the term immediately preceding the granting of the degree.

#### THE LIBRARY

A student registered in the University is entitled to the reference use of the University Library. The University Membership Card, issued upon the payment of fees, must be presented as identification.

Library books, with the exception of those in the Law and Medical collections, may be drawn for home use for a period of two weeks. Any book which does circulate is subject to recall by the Librarian at any time. Reserve books and periodicals for collateral reading must be used in the reading rooms when the Library is open. With special permission they may be drawn for overnight use when the Library closes. A fine of twenty-five cents will be charged for the first hour or fraction of an hour and five cents for each hour or fraction thereafter that a reserve book is overdue. Grades of a student will be withheld until his library record is clear.

#### HOURS

The University Library is open from 9:00 A.M. to 10:00 P.M. each class day (Saturday 9:00 A.M. to 5:00 P.M.), and from 2:00 to 6:00 P.M. on Sunday.

The Law Library is open from 9:00 A.M. to 10:00 P.M. each class day (Saturday, 9:00 A.M. to 5:00 P.M.), and from 2:00 to 6:00 P.M. on Sunday.

The Medical Library is open from 9:00 A.M. to 9:00 P.M. each class day (Saturday, 9:00 A.M. to 1:00 P.M.).

#### RIGHT TO DISMISS STUDENTS

The right is reserved by the University to dismiss or exclude any student from the University, or from any class or classes, whenever, in the



interest of the student or the University, the University Administration deems it advisable to do so.

#### RIGHT TO CHANGE RULES

The University and its various colleges, schools, and divisions reserve the right to modify or change requirements, rules, and fees. Such regulations shall go into force whenever the proper authorities may determine.

#### PROPERTY RESPONSIBILITY

The University is not responsible for the loss of personal property in any University building.



## VETERANS EDUCATION

The Office of Veterans' Education of The George Washington University operates as a service bureau for veterans interested in studying at the University and acts in a liaison capacity between the University and the Veterans Administration. Here information will be given concerning the educational program of the University and the procedure for securing the educational benefits of the "GI Bill".

Veterans who are undecided concerning vocational plans will be referred to the Counseling Center for expert vocational guidance by experienced counselors and psychometrists.

Special bulletins on veterans educational opportunities at The George Washington University may be obtained from the Admissions Office.

### AUTHORIZATION FROM THE VETERANS ADMINISTRATION

At least thirty days prior to registration the veteran should apply to the Regional Office of the Veterans Administration, 1825 H Street, NW., for a Certificate of Eligibility and Entitlement or, if entitled to vocational rehabilitation, a letter approving training under Public Law 16 for presentation to the Office of Veterans' Education at the time of registration. A photostatic copy of separation papers must accompany the original application for certification. Veterans who have attended another institution under the GI Bill must obtain a Supplemental Certificate of Eligibility to present to this University.

Veterans already enrolled in the University are requested to consult the Office of Veterans' Education prior to making any changes in academic program, because of changes in Veterans Administration regulations concerning Supplemental Certification.

### ADMISSION

The entrance requirements for the Junior College, Columbian College, and the School of Government, in other than the pre-professional curricula, have been somewhat modified for veterans who are deficient in the regular requirements for admission, but who have been found by psychological and educational tests able to undertake college work. Veterans who have been enrolled in another educational institution since leaving the service, or who have been out of the service for more than one year prior to the beginning of the term for which they seek admission, must qualify under the regular admissions policies. (For admission requirements and procedure, see pages 11-19.)

Credit for work done in the service schools is granted by the Junior



College, Columbian College, the School of Engineering, and the School of Government provided the veteran has not been out of the service for three years or more. To be considered for such credit, veterans should submit to the Director of Admissions photostatic copies of their records indicating courses successfully completed with sufficient identification of the course to enable the Admissions Office to locate it in the Guide to Evaluation of Educational Experience in the Armed Forces.

#### CONTINUOUS REGISTRATION

By carrying a continuous program throughout the fall, winter, and summer terms, the veteran may complete a four-year college course in three calendar years with no interruption in his subsistence payments.

#### AUTHORIZATION FROM THE VETERANS ADMINISTRATION

At least thirty days prior to registration the veteran should apply to the Regional Office of the Veterans Administration, 1825 H Street, N.W., for a Certificate of Eligibility and Enrollment or, if entitled to vocational rehabilitation, a letter approving training under Public Law 103-163. A photostatic copy of separation papers must accompany the original application for certification. Veterans who have attended other institutions under the GI Bill must obtain a Supplemental Certificate of Eligibility to present to this University. Veterans already enrolled in the University are requested to consult the Office of Veterans' Education prior to making any changes in academic program because of changes in Veterans Administration regulations concerning Supplemental Certification.

#### Admission

The entrance requirements for the Junior College, Columbian College, and the School of Government, in other than the pre-professional curriculum, have been somewhat modified for veterans who are admitted in the regular requirements for admission, but who have been found by psychological and educational tests able to undertake college work. Veterans who have been enrolled in another educational institution since leaving the service, or who have been out of the service for more than one year prior to the beginning of the term for which they seek admission, must qualify under the regular admission policies. (For admission requirements and procedure see pages 11-12.) Credit for work done in the service schools is granted by the Junior



## THE JUNIOR COLLEGE

### THE FACULTY AND STAFF OF INSTRUCTION

Chief Clerk: Maria, M.D., LL.D., *President of the University*  
 Maria Law Young, Ph.D., *Dean of the Junior College*  
 William Lewis Dancy, A.M., *Assistant Dean of the Junior College*  
 Katherine Rogers Brown, Ph.D., *Assistant Dean of the Junior College*  
 George Martin Koch, A.M., *Assistant Dean of the Junior College*  
 Carl Norcross Lovell, A.M., *Assistant Dean of the Junior College*  
 Thomas Benjamin Brown, Ph.D., *Professor of Physics*  
 Henry Graham Davis, A.M., LL.D., Litt.D., *Professor of Romance Languages*

## THE COLLEGES, SCHOOLS, AND DIVISIONS

Robert Louis Cherry, Ph.D., *Professor of Physics*  
 Robert Louis Cherry, Ph.D., LL.D., *Professor of European History*  
 Donald Bruce Young, Ph.D., *Professor of Zoology*  
 Warren Reed West, Ph.D., *Professor of Political Science*  
 Ruth Harris Smith, A.M., *Professor of Physical Education for Women*  
 Francis Clark Johnson, Ph.D., *Professor of Medicine*  
 Benjamin Langston Van Vleet, Ph.D., *Professor of Chemistry*  
 Marie Irene Ferguson, Ph.D., *Professor of Romance Languages*  
 Ralph Dale Kennedy, Ph.D., *Professor of Mathematics*  
 Florence Alice Meade, Ph.D., *Professor of Mathematics*  
 Walter Gray, Ph.D., *Professor of American History*  
 Thomas Dick, Ph.D., LL.D., *Professor of Philosophy*  
 The Howard Hanson, Ph.D., *Professor of Zoology*  
 Arthur Edward Smith, Ph.D., *Professor of Economics*  
 Paul William Sommers, Ph.D., *Professor of Biology*  
 Leamon Edwin Fourn, Ph.D., *Professor of History*  
 John W. Shaw Brown, Ph.D., *Professor of International Law*  
 Francis Kirkpatrick, A.M., *Professor of Home Economics*  
 Louis Clark Keating, Ph.D., *Professor of Romance Languages*  
 William Henry Myers, A.M., *Professor of Physical Education for Men*  
 Harold Leroy Gentry, Ph.D., *Professor of Zoology*  
 Samuel Nathaniel Wynn, Ph.D., *Professor of Chemistry*  
 Charles Benjamin Smith, Ph.D., *Professor of Chemistry*

The President of the University, the Dean and Assistant Dean (Junior College), the Chief Clerk of the University, and the Director of Education of the University, University of Chicago, are the only officials who have the right to appoint and terminate the faculty.



## The George Washington University

College, Columbian College, the School of Engineering, and the School of Government provided the system has not been out of the service for local reports or more. To be considered for such credit, persons should submit to the Director of Admission a photograph of their record showing satisfactory progress in the university and a statement of the course in which the Applicant Office or Board is in the Guide to Evaluation of Educational Experiences in the Armed Forces.

### General Information

The university has a long history of service to the nation and is a member of the Association of American Universities. It is a member of the Association of American Universities and is a member of the Association of American Universities.

## THE COLLEGES, SCHOOLS, AND DIVISIONS



## THE JUNIOR COLLEGE

### THE FACULTY AND STAFF OF INSTRUCTION \*

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
 Myron Law Koenig, Ph.D., *Dean of the Junior College*  
 William Lewis Turner, A.M., *Assistant Dean of the Junior College*  
 Katharine Rogers Adams, Ph.D., *Assistant Dean in the Junior College*  
 George Martin Koehl, A.M., *Assistant Dean in the Junior College*  
 Carr Bartleson Lavell, A.M., *Assistant Dean in the Junior College*

Thomas Benjamin Brown, Ph.D., *Professor of Physics*  
 Henry Grattan Doyle, A.M., LL.D., Litt.D., *Professor of Romance Languages*

Norris Ingersoll Crandall, M.Arch., *Professor of Art*  
 ‡Edward Henry Sehart, Ph.D., *Professor of German*  
 Walter Lynn Cheney, Ph.D., *Professor of Physics*  
 Elmer Louis Kayser, Ph.D., LL.D., *Professor of European History*  
 Donnell Brooks Young, Ph.D., *Professor of Zoology*  
 Warren Reed West, Ph.D., *Professor of Political Science*  
 Ruth Harriet Atwell, A.M., *Professor of Physical Education for Women*  
 Francis Edgar Johnston, Ph.D., *Professor of Mathematics*  
 Benjamin Douglass Van Evera, Ph.D., *Professor of Chemistry*  
 Merle Irving Protzman, Ph.D., *Professor of Romance Languages*  
 Ralph Dale Kennedy, Ph.D., *Professor of Accounting*  
 Florence Marie Mears, Ph.D., *Professor of Mathematics*  
 Wood Gray, Ph.D., *Professor of American History*  
 Thelma Hunt, Ph.D., M.D., *Professor of Psychology*  
 Ira Bowers Hansen, Ph.D., *Professor of Zoology*  
 Arthur Edward Burns, Ph.D., *Professor of Economics*  
 Paul William Bowman, Ph.D., *Professor of Biology*  
 Lawson Edwin Yocum, Ph.D., *Professor of Botany*  
 John Withrow Brewer, Ph.D., *Professor of International Law*  
 Frances Kirkpatrick, A.M., *Professor of Home Economics*  
 Louis Clark Keating, Ph.D., *Professor of Romance Languages*  
 William Henry Myers, A.M., *Professor of Physical Education for Men*  
 Harold Loran Geisert, Ph.D., *Professor of Sociology*  
 Samuel Nathaniel Wrenn, Ph.D., *Professor of Chemistry*  
 Charles Rudolph Naeser, Ph.D., *Professor of Chemistry*

\* The President of the University, the Dean and Assistant Deans (Junior College), the Registrar of the University, the Director of Admissions of the University, Professors, Adjunct Professors, Associate Professors, Assistant Professors, and Instructors constitute the Faculty.

‡ On sabbatical leave winter term 1950-51.



- Ernest Sewall Shepard, A.M., *Professor of English Literature*  
 Charles Watson Bliven, M.S., *Professor of Pharmacy*  
 Alan Thomas Deibert, A.M., *Professor of Romance Languages*  
 \*Donald Stevenson Watson, Ph.D., *Professor of Economics*  
 Myron Law Koenig, Ph.D., *Professor of American History*  
 Calvin Darlington Linton, Ph.D., *Professor of English Literature*  
 Charles Edward Gauss, Mus.B., Ph.D., *Elton Professor of Philosophy*  
 Elbridge Colby, Ph.D., *Professor of Journalism*  
 Donald Chenoweth Kline, B.Arch., *Associate Professor of Art*  
 John Francis Latimer, Ph.D., *Associate Professor of Classical Languages and Literatures*  
 Helen Bennett Lawrence, A.M., *Associate Professor of Physical Education for Women*  
 Irene Cornwell, Ph.D., *Associate Professor of French*  
 Kathryn Mildred Towne, A.M., *Associate Professor of Home Economics*  
 Antonio Alonso, A.M., *Associate Professor of Spanish*  
 Charles William Cole, Ph.D., *Associate Professor of American Literature*  
 Gretchen Louisa Rogers, Ph.D., *Associate Professor of German*  
 Wolfram Karl Legner, Ph.D., *Associate Professor of German*  
 Joseph Henry Krupa, M.S., *Associate Professor of Physical Education for Men*  
 Elizabeth Burtner, A.M., *Associate Professor of Physical Education for Women*  
 George Martin Koehl, A.M., *Associate Professor of Physics*  
 ‡Lubin Poe Leggett, A.M., *Associate Professor of Speech*  
 Robert Dale Campbell, Ph.D., *Associate Professor of Geography*  
 Lawrence Daniel Folkemer, Ph.D., *Associate Professor of Religion*  
 Robert Randal Meijer, Ph.D., *Associate Professor of Physics*  
 Robert Corbin Vincent, Ph.D., *Associate Professor of Chemistry*  
 William Lewis Turner, A.M., *Associate Professor of English*  
 Averett Howard, A.M., *Associate Professor of English Composition*  
 Curtis Edward Tuthill, Ph.D., *Associate Professor of Psychology*  
 Roderic Hollett Davison, Ph.D., *Associate Professor of European History*  
 George Francis Henigan, Jr., Ph.M., *Associate Professor of Speech*  
 Robert Hamilton Moore, Ph.D., *Associate Professor of English Composition*  
 Edith Elizabeth Mortensen, Ph.D., *Associate Professor of Zoology*  
 Dorothy Helene Veon, A.M., Ed.D., *Assistant Professor of Secretarial Studies*  
 Reuben Esselstyn Wood, Ph.D., *Assistant Professor of Chemistry*

\* On sabbatical leave winter term 1950-51.

‡ On leave of absence 1950-51.



- Raymond George Hanken, B.S. in P.E., *Assistant Professor of Physical Education for Men*
- Muriel Hope McClanahan, Ph.D., *Assistant Professor of English*
- Nels David Nelson, Ph.D., *Assistant Professor of Mathematics*
- \*Calvin Weir Pettit, Ph.M., *Assistant Professor of Speech*
- Carey DeWitt Eldridge, Ph.D., *Assistant Professor of Romance Languages*
- Sam Clark Munson, M.S., *Assistant Professor of Biology*
- Paul Edward Hanchett, Ph.D., *Assistant Professor of Economics*
- Edwin Lockwood Stevens, A.M., *Assistant Professor of Speech*
- Martin Steele Day, Ph.D., *Assistant Professor of English*
- James Harold Coberly, Ph.D., *Assistant Professor of American Literature*
- Willard Edmund Caldwell, Ph.D., *Assistant Professor of Psychology*
- Carr Bartleson Lavell, A.M., *Assistant Professor of Sociology*
- Phyllis Annette Nichols, A.M., *Assistant Professor of English*
- Vera Lillian Mowry, Ph.D., *Assistant Professor of English*
- \*John Palmer Reesing, Jr., A.M., *Assistant Professor of English*
- John Walter Beardslee III, A.B., B.D., *Assistant Professor of Religion*
- William Franklin Jewell III, M.S., *Assistant Professor of Geography*
- Daniel Remsen Norton, Ph.D., *Assistant Professor of Chemistry*
- William Frederick Sager, Ph.D., *Assistant Professor of Chemistry*
- Ronald Bettes Thompson, A.B., *Assistant Professor of European History*
- Rafael Supervía, Doctor en Derecho, *Assistant Professor of Spanish*
- James Willard Harkness, B.S., Ed.M., *Assistant Professor of Chemistry*
- John Gage Allee, Jr., A.M., *Assistant Professor of English*
- Bernard Hayman Fox, Ph.D., *Assistant Professor of Psychology*
- Gilbert Pierce Haight, Jr., Ph.D., *Assistant Professor of Chemistry*
- Richard Catlin Haskett, A.M., *Assistant Professor of American History*
- Kennett William Yeager, Ph.D., *Assistant Professor of Sociology*
- Jacqueline Chevallaz Buhrman, A.M., *Assistant Professor of French*
- John Edward Cantlon, B.S., *Assistant Professor of Botany*
- Norman Patterson Crawford, A.M., *Assistant Professor of Speech*
- James Willis Robb, A.B., *Assistant Professor of Romance Languages*
- Earl Larkin Williams, A.M., *Lecturer in Mathematics*
- Alice Sylvia Venezky, Ph.D., *Instructor in English Composition*
- Ruth Elsie Jones, A.M., *Instructor in English Composition*
- Theodore Peter Perros, M.S., *Instructor in Chemistry*
- Edith Shores Surrey, A.M., *Instructor in Speech*
- Arthur Castner Christman, Jr., M.S., *Instructor in Physics*
- Jean McQuiston Coover, A.M., *Instructor in Physics*
- Charles Lawrence Marks, A.M., *Instructor in Statistics*

\* On leave of absence 1950-51.



Jonathan Dayton Stoddart, A.M., *Instructor in Political Science*  
 \*William Adriance Withington, A.M., *Instructor in Geography*  
 Lee Sheward Bielski, A.M., *Instructor in Speech*  
 Mary Carman Rose, Ph.D., *Instructor in Philosophy*  
 Edith Louise Williams, A.M., *Instructor in English Composition*  
 Otho Thompson Beall, Jr., A.M., *Instructor in English Composition*  
 John Leiper Freeman, Jr., A.M., *Instructor in Political Science*  
 Henry Charles Krebs, A.B., *Instructor in Speech*  
 Frederick Charles Kurtz, M.B.A., *Instructor in Accounting*  
 Francis Lincoln Lambert, B.S., *Instructor in Zoology*  
 William Vorenberg, A.M., *Instructor in Speech*  
 William Heckert, A.B., *Instructor in Physics*  
 Wilson Emerson Schmidt, A.M., *Instructor in Economics*

## COMMITTEES ‡

## THE DEAN'S COUNCIL §

1951

Charles Edward Gauss  
 George Martin Koehl

1952

Wolfram Karl Legner  
 Robert Corbin Vincent

1953

Howard Maxwell Merriman  
 Elbridge Colby

## COMMITTEE ON ADMISSION AND ADVANCED STANDING

William Lewis Turner, *Chairman*George Martin Koehl, *Vice-Chairman*

Alan Thomas Deibert  
 Richard Catlin Haskett

Robert Hamilton Moore  
 Sam Clark Munson

## COMMITTEE ON SCHOLARSHIP

Katharine Rogers Adams, *Chairman*Carr Bartleson Lavell, *Vice-Chairman*

Kathryn Mildred Towne  
 Robert Randal Meijer

Wolfram Karl Legner  
 George Francis Henigan

\* On leave of absence 1950-51.

‡ The President of the University and the Dean of the Junior College are members *ex officio* of all committees.

§ Elected by the Faculty.



JUNIOR COLLEGE ADVISORY COMMITTEE

Dean of the Junior College, *Chairman*

Assistant Dean of the Junior College, *Vice-Chairman*

Samuel Nathaniel Wrenn

George Martin Koehl

Carr Bartleson Lavell

Katharine Rogers Adams

GENERAL INFORMATION

INTRODUCTORY

The Junior College, which comprises the first two years of the standard four-year college program in the liberal arts and sciences, was established in 1930 as a part of the academic reorganization of the University. Prior to 1930, the four-year program had been administered by Columbian College since its organization in 1821.

The Junior College curricula continue the studies of a general cultural nature begun in the secondary schools, and lay a foundation for the more specialized work which is to follow. Emphasis is accordingly laid (1) upon the social, cultural, biological, and physical background of civilization (history, political science, physical and biological sciences, literature, etc.) and (2) upon the discipline necessary to the effective prosecution of more advanced work (English rhetoric and composition, foreign languages, mathematics, etc.).

The Junior College also provides the pre-professional work required for admission to the schools of Pharmacy, Education, and Government, and the first two years of the pre-professional work required by the schools of Medicine and Law.

In addition it provides two-year curricula in vocational training, leading to the degree of Associate in Arts.

ADVISORY SYSTEM

In order that students may have opportunities for assistance in planning their courses and also for obtaining personal, educational, and vocational advice in every phase of their academic work during the first two years, a number of members of the Faculty serve as advisers to Junior College students.

Members of the Faculty, selected for their knowledge of Junior College requirements and student programs, advise students in making up their programs of study for each term. A separate staff of experienced advisers under the chairmanship of the Dean assists those students who find it difficult to make adjustments to college life because of scholastic or other reasons. Students who are "warned" or who are on probation may be required to consult these advisers at regular intervals. Students



are encouraged to consult any member of the Advisory Staff or their instructors about college problems at any time.

Copies of notices of "warning" or probation will be sent to the parents or guardians of students on request, and the Dean and members of the Advisory Staff are available for consultation with parents or guardians concerning student problems.

### REGULATIONS

*Students in the Junior College are subject to, and are expected to familiarize themselves with, the regulations regarding ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 11-23, and the University regulations stated on pages 36-42.*

### SCHOLASTIC-APTITUDE TESTS

Students admitted to the Junior College may be required to take the scholastic-aptitude tests of the University.

### REQUIRED PLACEMENT EXAMINATIONS

*English.*—Special placement examinations, required of all entering freshmen, will be conducted by the English Department. Students registered in English 1 are tested in the minimum essentials of standard usage, vocabulary, writing skill, and reading speed and comprehension. Those students who show marked superiority may be exempted from one or both terms of the course; those who are inadequately prepared for the course will be assigned to English A.

*Romance Languages.*—A standardized placement examination will be required of all entering students who wish to continue in college the language begun in high school. Upon completion of the examination assignment will be made to the appropriate course with credit to be assigned on the usual basis. This does not apply to students whose previous experience in a given language is equivalent to two college years.

*The Use of Correct English.*—The use of correct English, oral or written, is required not only in English but also in all other courses (see page 73).

### FIRST- AND SECOND-GROUP COURSES

A Junior College student may not take second-group courses (courses numbered 101-200) without the written permission of the instructor and of the Dean of the Junior College. A student will not be permitted to postpone a first-group course, required under the curriculum for which he is registered, in order to take a second-group course for elective credit. The principle that first-group courses must be taken in the Junior College years, and advanced courses in Columbian College and the professional schools, will be rigidly adhered to in approving student programs. No



student on probation is permitted to take second-group courses except by the express permission of the Committee on Scholarship.

#### AMOUNT OF WORK

Fifteen or sixteen credit hours, not including required physical education, constitute normal work. A student not on probation may be permitted by the Dean to take seventeen credit hours.

A student having a quality-point index of 3.50 may, with the permission of the Dean, take eighteen or nineteen credit hours. No student may take more than nineteen credit hours, except with the permission of the Committee on Scholarship.

For an employed student working more than twenty-four hours a week, nine credit hours, not including required physical education, constitute normal work. An employed student not on probation may be permitted by the Dean to take ten credit hours. An employed student having a quality-point index of 3.50 may be permitted by the Dean to take twelve or thirteen credit hours.

A student previously unemployed who accepts employment subsequent to registration or at any time during a term is required to report that fact immediately to the Dean, to bring his program within the limitations set by the Faculty for the amount of work to be carried by an employed student.

#### ATTENDANCE

The student is held responsible to the instructor in charge of the course for which he is registered for all the work of the course, and all absences must be excused before provision will be made for him to make up the work missed.

With the exceptions noted below, occasional absences, not to exceed in number for each term the credit hours for the term, will be automatically excused. (If a course has distinct divisions such as lectures, laboratories, recitations, etc., these excuses apply pro rata to such separate divisions.) In the application of this rule absences immediately preceding or following holiday periods are to be counted double.

Such automatic excuses are intended to cover the occasional minor exigencies and not to constitute an indiscriminate privilege. A student on probation is allowed no automatic excuses.

Excuses for absences from two or more consecutive class periods, and for absences from examinations which have been announced in advance, can be obtained only by making written application to the instructor in charge of the course.

A student whose absences from any class, whether excused or unexcused, are in excess of one-fourth of the total number of class periods will



receive the grade of *F* for the course, except by special ruling of the Dean on recommendation of the instructor in the course.

#### CLASSIFICATION OF STUDENTS

A student who has satisfactorily completed at least thirty-two credit hours of work, including eighteen credit hours in his curriculum requirements, is classed as a *sophomore*.

#### THE DEGREE OF ASSOCIATE IN ARTS

Upon the satisfactory completion of the requirements of the Junior College, the degree of Associate in Arts is conferred.

#### REQUIREMENTS FOR THE DEGREE

##### SCHOLARSHIP

The system of grading and of computing scholarship is described in detail on pages 36 and 37.

In order to receive the degree of Associate in Arts a student must have a quality-point index of at least 2.00.

*Honor Roll.*—The name of every student who has a quality-point index of 3.50 or higher will be placed on the honor roll and published. No consideration is given to those who have completed a total of less than fifteen credit hours. A place on the honor roll does not necessarily mean that the student will receive honors upon graduation.

*Probation.*—A student must maintain a quality-point index of at least 2.00 or be placed on probation.

A student remains on probation as long as his quality-point index is below 2.00; however, the student who has a quality-point index between 1.50 and 2.00 will be considered by the Committee on Scholarship, which may retain him on probation or suspend him.

*Suspension.*—A student who has a quality-point index below 1.50 will be suspended; however, a student who has a quality-point index between 1.40 and 1.50 will be considered by the Committee on Scholarship, which may retain him on probation or suspend him.

A student who is subject to probation for the third time, whether successive or after an interval, will be suspended.

For the purpose of these rules, the work taken in the summer sessions is considered one term.

A student suspended for poor scholarship may apply for readmission after an interval of two terms. On application for readmission the student must submit specific evidence to the Committee on Scholarship that he is better qualified to pursue college work. A student suspended twice for poor scholarship will not be readmitted.



The foregoing scholarship rules are applied when a student has undertaken a minimum of twelve hours. Thereafter, the rules are applied in multiples of nine hours.

*Warnings.*—At stated intervals during the academic year instructors file in the Office of the Junior College the names of those students who are doing work of *D* grade or lower. A "warning" will then be sent to the student and a copy of the warning filed with the appropriate adviser. A "warning" constitutes notice to the student that he must consult his instructor and adviser at the earliest opportunity. "Warning periods" are established between the 7th and 8th weeks of the fall and winter terms.

#### CURRICULUM REQUIREMENTS

The satisfactory completion of sixty credit hours of college work, exclusive of physical education, is required as outlined in one of the Junior College curricula described below.

Except for students registered for the combined degrees of Bachelor of Arts and Doctor of Medicine, not more than twelve credit hours of professional courses may be included in the one hundred and twenty credit hours required for the Bachelor's degrees in Columbian College. Junior College students electing professional courses under this rule must obtain the approval of the Dean of the Junior College.

*Physical Education Requirements.*—Physical education is required of all students in the freshman and sophomore years. (See "Physical Education Requirements", page 39.)

*Foreign-Language Requirements.*—For the degree of Associate in Arts a student must have completed satisfactorily the equivalent of two years of college work in a single foreign language except in the pre-pharmacy and pre-physical education curricula. (See "Placement Examinations", page 52.)

A student offering for admission four acceptable high school units of a single foreign language, or the equivalent, is not required to take any foreign language. If he offers three units, he must complete the second term of the second-year college course in the same language. If he offers two units, he must complete the entire second-year college course in the same language. If he offers one unit, he must complete the second term of the first-year college course and the entire second-year course in the same language.

In some instances foreign languages are required or recommended as a preparation for advanced work in Columbian College and the professional schools. The student should consult his adviser as to these requirements, so that appropriate foreign languages may be included, when necessary, in his Junior College program.



### Curricula for Admission to Columbian College and the Professional Schools

Each of the following curricula comprises the first two years of a standard four-year college course and prepares the student for upper division work. Requirements for graduation from the Junior College may not be the same as the requirements for admission to Columbian College or a professional school. Therefore, the student should consult the specific admission requirements of the college or school for which he is preparing.

The first sixty credit hours of the ninety required for admission to the School of Medicine are undertaken in the Junior College. Each premedical program must be approved by the premedical adviser. For specific requirements, see "Admissions", page 15.

#### COLUMBIAN COLLEGE:

##### 1. ARTS AND LETTERS\*

The following two-year curriculum prepares for the Bachelor of Arts program in Columbian College:

	Credit Hours
English .....	English 1-2 ..... 6
	English 51-52, 71-72, 91-92, Art 11-12, 71-72, Classical Languages 71-72, or Philosophy 51-52 ..... 6
Foreign Language ...	See page 55 for foreign language requirement... 12
Social Studies .....	Economics 1-2, History 39-40 or 71-72, Political Science 9-10, or Sociology 1-2..... 6
Science .....	Biology 1-2, Botany 1-2, Chemistry 3-4, 11-12, Physics 5, 7 (6, 7) (5, 6), or Zoology 1-2... 6 or 8
Physical Education ..	See page 39 for statement of requirement.
Elective† .....	22 to 24
Total.....	60 or 62

##### 2. SCIENCE\*

The following two-year curriculum prepares for the Bachelor of Science curriculum in Columbian College:

	Credit Hours
English .....	English 1-2 ..... 6
	English 51-52, 71-72, 91-92, Art 11-12, 71-72, Classical Languages 71-72, or Philosophy 51-52 (Elective if 6 hours of Social Studies are taken—see below) ..... 6

\* Students who have had high school courses in chemistry, mathematics, and physics should consult the description of the beginning courses in these fields. For the degree of Bachelor of Science, the student should obtain the advice of the major departments as to proper prerequisite and collateral courses for the intended major.

† Credit is not given for courses elected in Physical Education or Secretarial Studies.



	Credit Hours
Foreign Language ... French or German or non-science elective.....	12
NOTE.—A reading knowledge of French or German is required. This may be satisfied by French 4 or German 4 or by special examination.	
Mathematics ..... Mathematics 3, 6 or electives.....	6
NOTE.—The Mathematics 3 requirement may be satisfied by offering two years of high school algebra acceptable for admission; the Mathematics 6 requirement may be satisfied by offering one-half year of high school trigonometry acceptable for admission.	
Social Studies ..... Economics 1-2, History 39-40, 71-72, Political Science 9-10, or Sociology 1-2 (Elective if 6 hours in the English, Art, Classical Languages, Philosophy group are taken—see above)	6
Science ..... (a) Biology 1-2, Botany 1-2, Zoology 1-2 (b) Chemistry 11-12, Physics 5, 7 (6, 7) (5, 6) .....	18 to 22
(In satisfying this requirement, at least one year-course must be taken in both groups (a) and (b).)	
Physical Education .. See page 39 for statement of requirement.	
Elective*.....	2 to 12
Total.....	60 to 64

## SCHOOL OF PHARMACY:

The following two-year curriculum prepares for the Bachelor of Science in Pharmacy curriculum in the School of Pharmacy:

	Credit Hours
English ..... English 1-2 .....	6
Science ..... Botany 1 or 2, Chemistry 11-12, Physics 5, Zoology 1 (Freshman year).....	18
	Chemistry 21, 22, Physics 6 (Sophomore year). 11
Social Studies ..... Economics 1 .....	3
Professional courses .. Pharmacy 2 (Freshman year).....	1
	Pharmacy 21, 22, 23, 24, 25 (Sophomore year) 17
Elective .....	12
Physical Education .. See page 39 for statement of requirement.	
Total.....	68

## SCHOOL OF EDUCATION:

## 1. EDUCATION

The following two-year curriculum prepares for the Bachelor of Arts in Education curriculum in the School of Education:

\* Credit is not given for courses elected in Physical Education or Secretarial Studies.



	Credit Hours
English ..... English 1-2 .....	6
English 51-52, 71-72, or 91-92.....	6
Foreign Language ... (French, German, Latin, or Spanish). See page 55 for foreign language requirement.....	12
Social Studies ..... History 71-72 .....	6
Economics 1-2; Geography 121-22; History 39-40; Political Science 9-10; or Sociology 1-2. (Those offering for admission two or more acceptable senior high school units in the Social Studies may be exempted from this requirement) .....	6
Science and Mathematics..... Two terms to supplement senior high school courses, selected from: Biology 1-2; Botany 1-2; Chemistry 3-4, 11-12; Physics 5 and 6 or 7; Zoology 1-2; or Mathematics 3 and 6 or 6 and 12.....	6 or 8
Other Courses ..... Psychology 1 and 22.....	6
Speech 1 or 11.....	3
Statistics 53 .....	3
Physical Education .. See page 39 for statement of requirement.	
Elective .....	4 to 6
Total.....	60

## 2. HOME ECONOMICS

The following two-year curriculum prepares for the Bachelor of Science in Home Economics curriculum in the School of Education:

	Credit Hours
English ..... English 1-2 .....	6
English 51-52, 71-72; Speech 1, 2 (1, 11).....	6
Foreign Language ... (French, German, Latin, or Spanish). See page 55 for foreign language requirement.....	12
Social Studies* ..... Economics, History, Political Science, or So- ciology .....	6
Science ..... Chemistry 3-4, 11-12 (Sophomore year).....	8
Psychology ..... Psychology 1 .....	3
Physical Education .. See page 39 for statement of requirement.	
Curriculum Electives. Home Economics 1, 22 (Freshman year).....	6
Home Economics 51, 62 (Sophomore year)....	6
Academic Electives.. (Freshman year) .....	3
(Sophomore year) .....	4
Total.....	60

\* Courses selected with the recommendation of the adviser in the Department of Home Economics.



## 3. PHYSICAL EDUCATION FOR MEN

The following two-year curriculum prepares for the Bachelor of Science in Physical Education curriculum in the School of Education:

	Credit Hours
English ..... English 1-2 .....	6
Social Studies ..... History 39-40, 71-72, Political Science 9-10, or Sociology 1-2 (Freshman year).....	6
Economics, History, or Political Science (Sophomore year) .....	6
Science ..... Biology 1-2 or Zoology 1-2 (Freshman year) ..	6 or 8
Physical Education .. See page 39 for statement of requirement.	
Curriculum Electives. Physical Education 43-44, 47; Speech I or II (Freshman year) .....	9
Physical Education 45-46, 49, 50, 58; Psychology I, 22 (Sophomore year) .....	18
Elective .....	9
Total.....	60 or 62

## 4. PHYSICAL EDUCATION FOR WOMEN

The following two-year curriculum prepares for the Bachelor of Science in Physical Education curriculum in the School of Education:

	Credit Hours
English ..... English 1-2 .....	6
English 51-52, 71-72, or 91-92.....	6
Social Studies ..... History 39-40, 71-72; Political Science 9-10; or Sociology 1-2 .....	6
Science ..... Biology 1-2 or Zoology 1-2.....	6 or 8
Physical Education .. See page 39 for statement of requirement.	
Curriculum Electives. Physical Education 43-44 (Freshman year)....	4
Physical Education 45-46, 49, 50; Psychology I, 22 (Sophomore year) .....	16
Academic Electives.. (Each year) .....	6 or 8
Total.....	60 or 62

## SCHOOL OF GOVERNMENT:

## 1. ACCOUNTING AND BUSINESS ADMINISTRATION

The following two-year curriculum prepares for the Bachelor of Arts in Government curricula in Accounting and in Business Administration in the School of Government:



	Credit Hours
Accounting ..... Accounting 1-2 .....	6
English ..... English 1-2 .....	6
Foreign Language ... See page 55 for foreign language requirement..	12
Social Studies ..... Economics 1-2 .....	6
History 71-72 or Political Science 9-10.....	6
Speech 1 .....	3
Statistics ..... Statistics 51, 52 .....	6
Physical Education .. See page 39 for statement of requirement.	
Elective ..... (Students interested in Foreign Commerce in- clude Geography 51) .....	15
Total.....	60

## 2. FOREIGN AFFAIRS

The following two-year curriculum prepares for the Bachelor of Arts in Government curriculum in Foreign Affairs in the School of Government:

	Credit Hours
English ..... English 1-2 .....	6
Foreign Language ... See page 55 for foreign language requirement..	12
Social Studies ..... Economics 1-2, History 39-40, 71-72; Political Science 9-10 .....	24
Mathematics, Science. Biology, Botany, Chemistry, Mathematics, Phys- ics, Statistics, or Zoology.....	6 or 8
Physical Education .. See page 39 for statement of requirement.	
Elective ..... (To satisfy minimum required credits. Students interested in Foreign Service include Geog- raphy 51.) .....	
Total.....	60 or 62

## 3. STATISTICS

The following two-year curriculum prepares for the Bachelor of Arts in Government curriculum in Statistics in the School of Government:

	Credit Hours
English ..... English 1-2 .....	6
Foreign Language ... See page 55 for foreign language requirement..	12
Social Studies ..... Economics 1-2, Philosophy 51-52.....	12
Mathematics ..... Mathematics 20 and prerequisites.....	3 to 12
Physical Education .. See page 39 for statement of requirement.	
Elective ..... ..	18 to 27
Total.....	60



## VOCATIONAL CURRICULA

In addition to the above curricula, all of which prepare for admission to upper division colleges and schools, the Junior College offers the following two-year terminal courses.

## 1. SECRETARIAL STUDIES

		Credit Hours
English .....	English 1-2 .....	6
	English 51-52, 71-72, or 91-92.....	6
	Secretarial Studies 51 .....	3
Social Studies .....	Economics 1-2 .....	6
General .....	Speech 11 .....	3
	Business Administration 51.....	3
Secretarial Skills* ...	Secretarial Studies 1, 2, 11, 12, 15, 16, and 54..	21
Physical Education ..	See page 39 for statement of requirement.	
Elective .....	(To be selected with approval of adviser).....	12
Total.....		60

## 2. ACCOUNTING

The required work may be completed in two years on a full-time basis or in three years on a part-time basis, with the approval of the adviser.

REQUIRED COURSES	Credit Hours
Accounting 1-2.....	6
Accounting 102.....	3
Accounting 111.....	3
Accounting 137.....	3
Accounting 147.....	3
Accounting 151-52.....	6
Accounting 153.....	3
Accounting 161.....	3
Business Administration 102.....	3
Business Administration 131.....	3
Economics 1-2.....	6
English 1-2.....	6
Political Science 127.....	3
Political Science 128.....	3
Physical Education	
See page 39 for statement of re- quirement.	
Elective .....	6
(To be selected with the ap- proval of the adviser.)	
Total.....	60

\* Qualified students, upon the approval of the adviser or the satisfactory completion of a placement test, may waive Secretarial Studies 1, 11, and 12. Other courses, approved by the adviser, will be substituted.



### Examinations for Waiving Curriculum Requirements \*

A Student desiring to omit a required course may take such examination as the department prescribes, and, on passing satisfactorily, he may be relieved of the curriculum requirements in that subject and may qualify for registration in an advanced course. Passing this examination does not entitle the student to any hours of credit toward the degree. A student desiring to take such examinations should make written request of the Dean and pay the required fee at the Office of the Comptroller before the date of the examination specified in the University calendar.

### Honors

The degree of Associate in Arts may be conferred "with distinction" upon the student who has a quality-point index of 3.50 or higher, provided that student has been in residence at the University for 30 hours, 15 of which must have been taken in the Junior College at the time the index is calculated.

\* This provision does not apply to the premedical student, all of whose required premedical work must be taken in a recognized college of arts and sciences.



## COLUMBIAN COLLEGE

### THE FACULTY AND STAFF OF INSTRUCTION •

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
 Henry Grattan Doyle, A.M., LL.D., Litt.D., *Dean of Columbian College*  
 Calvin Darlington Linton, Ph.D., *Assistant Dean of Columbian College*

---

Thomas Benjamin Brown, Ph.D., *Professor of Physics*  
 Henry Grattan Doyle, A.M., LL.D., Litt.D., *Professor of Romance Languages*  
 Joseph Hiram Roe, Ph.D., *Professor of Biochemistry*  
 Norris Ingersoll Crandall, M.Arch., *Professor of Art*  
 ‡Edward Henry Sehr, Ph.D., *Professor of German*  
 Robert Whitney Bolwell, Ph.D., *Professor of American Literature*  
 Walter Lynn Cheney, Ph.D., *Professor of Physics*  
 James Henry Taylor, Ph.D., *Professor of Mathematics*  
 Elmer Louis Kayser, Ph.D., LL.D., *Professor of European History*  
 Errett Cyril Albritton, A.B., M.D., *Professor of Physiology*  
 Donnell Brooks Young, Ph.D., *Professor of Zoology*  
 George Antony Gamow, Ph.D., *Professor of Theoretical Physics*  
 Warren Reed West, Ph.D., *Professor of Political Science*  
 ‡Frank Mark Weida, Ph.D., *Professor of Statistics*  
 Francis Edgar Johnston, Ph.D., *Professor of Mathematics*  
 Leland Wilbur Parr, Ph.D., *Professor of Bacteriology*  
 Benjamin Douglass Van Evera, Ph.D., *Professor of Chemistry*  
 Mitchell Dreese, Ph.D., *Professor of Educational Psychology*  
 Merle Irving Protzman, Ph.D., *Professor of Romance Languages*  
 Alva Curtis Wilgus, Ph.D., *Professor of Latin American History*  
 Florence Marie Mears, Ph.D., *Professor of Mathematics*  
 Wood Gray, Ph.D., *Professor of American History*  
 Thelma Hunt, Ph.D., M.D., *Professor of Psychology*  
 Ira Bowers Hansen, Ph.D., *Professor of Zoology*  
 Arthur Edward Burns, Ph.D., *Professor of Economics*  
 John Albert Tillema, Ph.D., LL.M., S.J.D., *Professor of Political Science*  
 Paul William Bowman, Ph.D., *Professor of Biology*  
 Lawson Edwin Yocum, Ph.D., *Professor of Botany*  
 John Withrow Brewer, Ph.D., *Professor of International Law*

\* The President of the University, the Dean and the Assistant Dean of the College, the Registrar of the University, the Director of Admissions of the University, Professors, Adjunct Professors, Associate Professors, and Assistant Professors constitute the Faculty.

‡ On sabbatical leave winter term 1950-51.



- Louis Clark Keating, Ph.D., *Professor of Romance Languages*  
 Harold Loran Geisert, Ph.D., *Professor of Sociology*  
 Samuel Nathaniel Wrenn, Ph.D., *Professor of Chemistry*  
 Charles Rudolph Naeser, Ph.D., *Professor of Chemistry*  
 Howard Maxwell Merriman, Ph.D., *Professor of American Diplomatic History*  
 Ernest Sewall Shepard, A.M., *Professor of English Literature*  
 \*George Winchester Stone, Jr., Ph.D., *Professor of English Literature*  
 Fred Salisbury Tupper, Ph.D., *Professor of English Literature*  
 Warren Andrew, Ph.D., M.D., *Professor of Anatomy*  
 Alan Thomas Deibert, A.M., *Professor of Romance Languages*  
 Chester Elwood Leese, Ph.D., *Professor of Physiology*  
 ‡Donald Stevenson Watson, Ph.D., *Professor of Economics*  
 Myron Law Koenig, Ph.D., *Professor of American History*  
 Calvin Darlington Linton, Ph.D., *Professor of English Literature*  
 Charles Edward Gauss, Mus.B., Ph.D., *Elton Professor of Philosophy*  
 Elbridge Colby, Ph.D., *Professor of Journalism*  
 James Christopher Corliss, A.M., *Adjunct Professor of Inter-American Economics*  
 Edward Campion Acheson, Ph.D., *Associate Professor of Finance*  
 Donald Chenoweth Kline, B.Arch., *Associate Professor of Art*  
 John Francis Latimer, Ph.D., *Associate Professor of Classical Languages and Literatures*  
 Irene Cornwell, Ph.D., *Associate Professor of French*  
 Antonio Alonso, A.M., *Associate Professor of Spanish*  
 Charles William Cole, Ph.D., *Associate Professor of American Literature*  
 Gretchen Louisa Rogers, Ph.D., *Associate Professor of German*  
 Wolfram Karl Legner, Ph.D., *Associate Professor of German*  
 George Martin Koehl, A.M., *Associate Professor of Physics*  
 §Lubin Poe Leggette, A.M., *Associate Professor of Speech*  
 Robert Dale Campbell, Ph.D., *Associate Professor of Geography*  
 Lawrence Daniel Folkemer, Ph.D., *Associate Professor of Religion*  
 Robert Randal Meijer, Ph.D., *Associate Professor of Physics*  
 Robert Corbin Vincent, Ph.D., *Associate Professor of Chemistry*  
 Wolfgang Herbert Kraus, Dr.Jur., S.J.D., *Associate Professor of Political Science*  
 Curtis Edward Tuthill, Ph.D., *Associate Professor of Psychology*  
 Roderic Hollett Davison, Ph.D., *Associate Professor of European History*  
 George Francis Henigan, Jr., Ph.M., *Associate Professor of Speech*  
 Robert Hamilton Moore, Ph.D., *Associate Professor of English Composition*

\* On sabbatical leave 1950-51.

‡ On sabbatical leave winter term 1950-51.

§ On leave of absence 1950-51.



- Edith Elizabeth Mortensen, Ph.D., *Associate Professor of Zoology*  
 Reuben Esselstyn Wood, Ph.D., *Assistant Professor of Chemistry*  
 Nels David Nelson, Ph.D., *Assistant Professor of Mathematics*  
 \*Calvin Weir Pettit, Ph.M., *Assistant Professor of Speech*  
 Sam Clark Munson, M.S., *Assistant Professor of Biology*  
 Edwin Lockwood Stevens, A.M., *Assistant Professor of Speech*  
 Martin Steele Day, Ph.D., *Assistant Professor of English*  
 James Harold Coberly, Ph.D., *Assistant Professor of American Literature*  
 Willard Edmund Caldwell, Ph.D., *Assistant Professor of Psychology*  
 Edward Perkins Mangum, A.M., *Assistant Professor of Speech*  
 John Walter Beardslee III, A.B., B.D., *Assistant Professor of Religion*  
 William Franklin Jewell III, M.S., *Assistant Professor of Geography*  
 William Frederick Sager, Ph.D., *Assistant Professor of Chemistry*  
 Ronald Bettes Thompson, A.B., *Assistant Professor of European History*  
 Rafael Supervía, Doctor en Derecho, *Assistant Professor of Spanish*  
 John Gage Allee, Jr., A.M., *Assistant Professor of English*  
 Bernard Hayman Fox, Ph.D., *Assistant Professor of Psychology*  
 Richard Catlin Haskett, Ph.D., *Assistant Professor of American History*  
 Kennett William Yeager, Ph.D., *Assistant Professor of Sociology*  
 John Edward Cantlon, B.S., *Assistant Professor of Botany*  
 Norman Patterson Crawford, A.M., *Assistant Professor of Speech*  
 Walter Hall Bailey, A.M., *Assistant Professor of Geography*  
 Alberto Vázquez, Ph.D., *Lecturer on Spanish American Literature*

## COMMITTEES ‡

## THE DEAN'S COUNCIL §

1951

Gretchen Louisa Rogers  
 Reuben Esselstyn Wood

1952

Merle Irving Protzman  
 James Harold Coberly

1953

George Martin Koehl  
 Martin Steele Day

## COMMITTEE ON ADMISSION AND ADVANCED STANDING

Calvin Darlington Linton, *Chairman*  
 Edith Elizabeth Mortensen, *Secretary*

Alan Thomas Deibert

Charles William Cole

Robert Randal Meijer

\* On leave of absence 1950-51.

‡ The President of the University and the Dean of Columbian College are members ex officio of all committees.

§ Elected by the Faculty.



## COMMITTEE ON THE USE OF CORRECT ENGLISH

Averett Howard, *Chairman*Edith Elizabeth Mortensen  
Muriel Hope McClanahanGeorge Francis Henigan, Jr.  
Martin Steele Day

## COMMITTEE ON SCHOLARSHIP

Fred Salisbury Tupper, *Chairman*Florence Marie Mears  
Howard Maxwell MerrimanSamuel Nathaniel Wrenn  
Antonio Alonso

## COMMITTEE ON STUDIES

The Dean of the College, *Chairman*Fred Salisbury Tupper  
(*Languages and Literatures*)  
Frank Mark Weida  
(*Mathematics and Physical  
Sciences*)Thelma Hunt  
(*Natural Sciences*)  
Wood Gray  
(*Social Sciences*)

## DIVISIONAL ORGANIZATIONS

## LANGUAGES AND LITERATURES

John Francis Latimer, *Chairman*  
James Harold Coberly, *Secretary*

## Educational Committee

Fred Salisbury Tupper, *Chairman*  
John Francis Latimer  
Gretchen Louisa Rogers

## MATHEMATICS AND THE PHYSICAL SCIENCES

George Martin Koehl, *Chairman*  
William Frederick Sager, *Secretary*

## Educational Committee

Samuel Nathaniel Wrenn, *Chairman*  
Thomas Benjamin Brown  
Florence Marie Mears



## NATURAL SCIENCES

Thelma Hunt, *Chairman*Francis Lincoln Lambert, *Secretary*

## Educational Committee

Angus MacIvor Griffin, *Chairman*

Chester Elwood Leese

Edith Elizabeth Mortensen

## SOCIAL SCIENCES

Ronald Bettes Thompson, *Chairman*Lawrence Daniel Folkemer, *Secretary*

## Educational Committee

Harold Loran Geisert, *Chairman*

Donald Stevenson Watson

Roderic Hollett Davison

## GENERAL INFORMATION

## INTRODUCTORY

Columbian College was founded in 1821. James Monroe, then President of the United States, aided in obtaining the charter from Congress which established "The Columbian College in the District of Columbia" for the "sole and exclusive purpose of educating youth in the English, learned and foreign languages, the liberal arts, sciences and literature", with full power to confer all degrees "usually granted and conferred in colleges".

In 1936, when the Junior College was established, the name "Columbian College" was bestowed upon the senior college of liberal arts.

## THE COLUMBIAN COLLEGE PROGRAM

In The George Washington University, the program for liberal arts and sciences extends from the general collegiate education of the Junior College (the freshman and sophomore years), through the instruction for the Bachelor's degrees of Columbian College (the junior and senior years), and the studies for the Master's degrees which are also in Columbian College, to the graduate discipline leading to the degree of Doctor of Philosophy, which is administered by the Graduate Council.



The purpose of Columbian College is to round out the program of liberal education begun in the Junior College and to bring to a focus educationally the individual talents and aptitudes of the student of liberal arts.

The program involves a comprehensive survey of a field of study, together with such knowledge of other fields as will contribute to the general educational development of the student. A field of study may be confined to one department or may involve a group of related courses in more than one department, or more than one division.

#### DIVISIONAL ORGANIZATIONS

The following divisions have been established in The George Washington University based on the relationship of course content, interrelation of methods and prerequisites, and similarity of background and viewpoint:

1. *The Division of Languages and Literatures.*—The departments of Classical Languages and Literatures, English, Germanic Languages and Literatures, and Romance Languages and Literatures.
2. *The Division of Mathematics and the Physical Sciences.*—The departments of Biochemistry, Chemistry, Mathematics, Pharmacology, Physics, and Statistics.
3. *The Division of the Natural Sciences.*—The departments of Anatomy, Bacteriology, Biology, Botany, Geography, Geology, Neurology, Pathology, Physiology, Psychology, and Zoology.
4. *The Division of the Social Sciences.*—The departments of Accounting, Business Administration, Economics, Education, History, Law, Philosophy, Political Science, Religion, Sociology, and Speech.

The departments under these University divisions function for Columbian College only in such fields of study as are appropriate for a senior college of arts, letters, and sciences.

#### REGULATIONS

*Students in Columbian College are subject to, and are expected to familiarize themselves with, the regulations regarding ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 11-23, and the University regulations stated on pages 36-42.*

#### PREREQUISITES

It is assumed that a student entering Columbian College has met the requirements of the Junior College under the *Arts and Letters* curriculum or the *Science* curriculum. Following is a summary of these prerequisites:

The *Arts and Letters* curriculum: (1) Freshman English (6 credit hours) and an additional sophomore-year course (6 credit hours) in English, American, or European literature. A first-group course in Art, Classical Languages, or Philosophy may be substituted for the sopho-



more course in English. (2) Two college years (at least 12 credit hours) of a single foreign language or the equivalent (see foreign-language requirement, page 55), are required. A transfer student who has had foreign-language courses in another institution meeting 4 or 5 times a week may have acquired as much as 12 credit hours in a foreign language without having taken four terms (two full years). Such a student is required to take additional work here in the same language until he has completed four terms (or an equivalent combination of high school years and college terms). (3) At least one year (6 credit hours) in social studies, chosen from first-group courses in History, Political Science, Economics, or Sociology, is required. (4) At least one year (6 or 8 credit hours) of a laboratory science (Biology, Botany, Chemistry, Physics, or Zoology), is required.

The remaining hours of the Junior College program (roughly a minimum of 22 to 24 hours) should be devoted to the prerequisite courses required by the prospective major department (as stated following the departmental staff in the courses of instruction section of the CATALOGUE) or recommended by the advisers in the field-of-study major (see pamphlets prepared by the respective advisers), together with appropriate electives.

The *Science* curriculum requirements in English are the same as those of the Arts and Letters curriculum, except that a year of a social study may be substituted for the sophomore requirement in English, Art, or Philosophy; in other words, the sophomore English and social studies requirements are combined, and may be met by taking at least 6 credit hours in English, Art, Classical Languages, Philosophy, or a social study. The foreign-language requirement is the same as for the Arts and Letters curriculum, except that French or German is specified. At least 6 credit hours in Mathematics must be taken; additional work in Mathematics is required of prospective majors in Chemistry or Physics. In science, the student should take courses in both biological and physical sciences, bearing in mind the prerequisites stated by the department under which he expects to major as well as specified prerequisites in certain departments (such as Mathematics and Chemistry for majors in Physics, or Mathematics and Physics for majors in Chemistry).

A transfer student admitted to Columbian College with deficiencies in freshman or sophomore work (whether in amount or in distribution of courses), corresponding to the program outlined above, is required to begin to make up such deficiencies immediately upon admission to Columbian College, and to carry courses for that purpose each term until all the general education requirements described above are satisfied. Students transferring from the School of Government must complete pre-Columbian College requirements in science and in Sophomore English (or Art, Classical Languages, or Philosophy), as prescribed in the Arts and Letters curriculum.



## AMOUNT OF WORK

A full-time student who is not on probation may take ordinarily not more than seventeen credit hours. A student employed more than twenty-four hours a week, who is not on probation, may take not more than ten credit hours.

A full-time student whose quality-point index is 3.50 or higher may take not more than nineteen credit hours. An employed student who meets the same standard may take not more than twelve credit hours.

A student previously unemployed who accepts employment subsequent to registration or at any time during a term is required to report that fact immediately to the Dean, in order that adjustments in schedule may be made, if necessary, to bring his program within the Faculty's limitations upon the amount of work to be carried by an employed student.

## ATTENDANCE

The student is held responsible for all the work of the courses in which he is registered, and all absences must be excused by the instructor in charge before provision is made for the student to make up the work missed. Excessive absence in any course will lead to loss of credit in that course, even though other requirements, such as tests, term-papers, and examinations are met.

## CLASSIFICATION OF STUDENTS

A student who has completed less than thirty credit hours in Columbian College, and who has registered his major at the Office of the Registrar, is classed as a *junior*. A student who has completed thirty credit hours in Columbian College, including at least one course in his major, is classed as a *senior*. A student who has satisfactorily completed the work for the Bachelor's degree, and whose program of study has been approved and filed in the Office of the Registrar, is classed as a *master in course*.

## INDEPENDENT STUDY PLAN

Under the independent study plan a student of demonstrated capacity, with special interest in the subject matter of a course, may be permitted to undertake independent study under the personal direction of an instructor, in accordance with the rules of the division in which the subject falls. Credit under this plan is limited to the specific course-credits as designated in the list of courses of instruction in the CATALOGUE.

## CORRESPONDENCE AND HOME-STUDY COURSES

No credit is given for work done by correspondence or in home-study courses.



## THE BACHELOR'S DEGREES

Upon the satisfactory completion of the undergraduate requirements of Columbian College, the degree of Bachelor of Arts or Bachelor of Science is conferred.

In cooperation with the School of Medicine a seven-year curriculum leading to the combined degrees of Bachelor of Arts and Doctor of Medicine is offered.

## REQUIREMENTS FOR THE DEGREES

## RESIDENCE

For the residence requirement, see page 40.

## SCHOLARSHIP

The system of grading and of computing scholarship is described in detail on pages 36 and 37.

In order to graduate, a student must have a general quality-point index of at least 2.00. In addition, he must have a quality-point index of at least 2.50 in his major subject.\* Grades in courses taken at other institutions are not considered in computing the quality-point index.

In computing the quality-point index in the major, all second-group and third-group courses in the major field taken at The George Washington University are included, even though minimum requirements for the major may have been exceeded, except when registration for graduate credit is approved. Grades received in first-group courses are not considered.

*Probation.*—A student must maintain a quality-point index of at least 2.00, or be placed on probation. A student remains on probation as long as his quality-point index is below 2.00, or until his probation is removed by the Committee on Scholarship.

*Suspension.*—A student who has a quality-point index below 1.00 or who is placed on probation for a third term, whether successive or after an interval, is suspended.

A student suspended for poor scholarship may apply for readmission after an interval of a calendar year. He must then submit evidence to the Committee on Admission and Advanced Standing that during his absence from the University he has so conducted himself as to indicate that he will profit by readmission. A student suspended twice for poor scholarship will not be readmitted.

For the purpose of these rules, the summer sessions are considered a term.

\* Except in a Field-of-Study Major.



The foregoing scholarship rules are applied to a student with a limited schedule only when he has undertaken a minimum of fifteen credit hours.

#### CURRICULUM REQUIREMENTS

The curriculum requirements for the Bachelor's degrees include at least sixty credit hours beyond the requirements of the Junior College (the curriculum in *Arts and Letters* or in *Sciences*) and the satisfactory completion of the major. Each program must be approved by the major adviser and by the Dean.

At least twenty-four credit hours of the last sixty credit hours counted towards the Bachelor's degree must be taken in subjects\* not included in the major field or department. The student should consult his major adviser at each registration regarding the inclusion in his program of suitably distributed electives, with a view to meeting this requirement before graduation.

Except for students registered for the combined degrees of Bachelor of Arts and Doctor of Medicine, not more than twelve credit hours of professional courses may be included in the one hundred and twenty credit hours required for the Bachelor's degrees in Columbian College. Columbian College students electing professional courses under this rule must obtain the approval, in advance, of the Dean of Columbian College.

After selecting a curriculum, a student may not change to another except by permission of the Dean and on condition that he fulfill the requirements of the curriculum to which he changes as of the date when the change is approved by the Dean.

Each student is required to select and file with the Registrar a choice of major upon entering Columbian College. He may change the major only with the consent of the Dean and of the department or division concerned, and must meet the requirements for the major to which he changes as of the date when the change is approved by the Dean.

First-group courses may be required as prerequisites to undergraduate-major programs, but because of their introductory character may not be counted as part of such programs. (See "Explanation of Course Numbers".)

*Examinations for Waiving Curriculum Requirements.*—A student desiring to omit a required or prerequisite course may take such examination as the department prescribes, and, on passing satisfactorily, he may be relieved of the curriculum or prerequisite requirement in that subject and may qualify for registration in an advanced course. Passing of this examination shall not entitle him to any credit toward the degree. A student desiring to take such examinations should make written request

\* Art, Biology, Botany, Chemistry, Classical Languages and Literatures, Economics, English, Geography, Geology, Germanic Languages and Literatures, History, Journalism, Mathematics, Philosophy, Physics, Political Science, Psychology, Religion, Romance Languages and Literatures, Sociology, Speech, Statistics, Zoology.



of the Dean and pay the required fee at the Office of the Comptroller before the date of the examination specified in the University calendar.

*Use of Correct English.*—Any student whose English in any course whatever is deemed unsatisfactory may be reported by the instructor to the Dean and to the Committee on the Use of English. The Chairman of the Committee may assign supplementary work, without academic credit, varying in amount with the needs of the student. If the work prescribed is equivalent to a course, the regular tuition fee is charged. The granting of a degree may be delayed by failure to make up any such deficiency in English to the satisfaction of the Committee and the Dean.

#### Bachelor of Arts

The work of the junior and senior years, including a major in one of the following major fields, must be approved by the major adviser and by the Dean.

*Major Fields.*—American Thought and Civilization, Art (Appreciation or Drawing and Painting), Biology, Botany, Chemistry, Economics, English Literature, French Literature, Geography, Geology, Germanic Languages and Literatures, History, Journalism, Latin American Civilization and Culture, Mathematics, Philosophy, Physics, Political Science, Psychology, Religion, Sociology, Spanish American Literature, Spanish Literature, Speech (Public Speaking, Theatre, or Speech Correction), Statistics, Zoology.

*Combined Degrees of Bachelor of Arts and Doctor of Medicine.*—A candidate for the combined degrees of Bachelor of Arts and Doctor of Medicine must: (1) complete the premedical college requirements (see page 15); (2) fulfill the Columbian College residence requirement of at least thirty credit hours; (3) obtain the approval of the Dean of Columbian College at the time of entering the School of Medicine; (4) obtain the recommendation of the Dean of the School of Medicine at the completion of all prescribed courses in the first year of the School of Medicine, at which time the degree of Bachelor of Arts will be conferred (professional work taken at another institution will not satisfy the major requirement for the combined degrees); (5) maintain throughout the entire course the scholarship level required for graduation.

#### Bachelor of Science

The work of the junior and senior years, including a major in one of the sciences mentioned below, must be approved by the major department or division and by the Dean.

##### Biological Sciences

Biology  
Botany  
Zoology

##### Physical Sciences

Chemistry  
Mathematics  
Physics  
Statistics



## THE UNDERGRADUATE MAJOR \*

There are two types of undergraduate majors: the field-of-study major; and the departmental major.

## THE FIELD-OF-STUDY MAJOR

Each Field-of-Study Major covers a carefully worked out field of co-ordinated study and is under the supervision of the division or divisions concerned.

The *Field-of-Study Major* requires no specific number of credit hours, no specific program of courses, and no specific quality-point index for the major, although the student is required to meet the over-all general requirements for the degree (at least 120 credit hours, plus required physical education, with a quality-point index at 2.00). The Major Examination in the Field-of-Study Major replaces all of the traditional quantitative and qualitative requirements for a major. Ability to pass the Major Examination is assumed to be a convincing demonstration that the student possesses the breadth, depth, and quality of knowledge of his major usually defined in terms of credit hours, courses, grades, and a better-than-average quality-point index. A pamphlet prepared under the direction of the adviser in the field of study and obtainable either from the adviser or from the Office of the Dean of Columbian College provides the information needed by the prospective student, who should place himself under the direction of the appropriate adviser immediately upon completing Junior College work and beginning his junior year (the first senior-college year) in Columbian College.

The Field-of-Study Major places special emphasis on the intellectual development of the individual student. Programs in the same major may vary, depending upon the individual student's background, previous study, reading habits, and aptitudes. The student is expected to consult his adviser frequently, and the special proseminar offered in the field gives him further opportunity for individual advice and direction in pursuing a program especially adapted to his needs and abilities. A close student-adviser relationship is essential for the student's success under the Field-of-Study Major plan.

The following Field-of-Study Majors are offered: (1) American Thought and Civilization, (2) Biology, (3) English Literature, (4) French Literature, (5) History, (6) Latin American Civilization and Culture, (7) Philosophy, (8) Spanish American Literature, (9) Spanish Literature, (10) Statistics, (11) Zoology.

The major in Biology extends broadly over the work of its division; and those in American Thought and Civilization and in Latin American Civilization and Culture involve studies in two divisions, those of

\* For a complete description of the undergraduate major, see the special bulletin.



Languages and Literatures and of Social Studies. The other Field-of-Study Majors, with the exception of the major in Spanish American Literature, replace departmental majors in their respective fields. A candidate for a Bachelor's degree with a major in Biology, English Literature, French Literature, History, Philosophy, Spanish Literature, Statistics, or Zoology must elect a Field-of-Study Major.

#### Proseminar in the Major

For the convenience of the student a proseminar is offered in each field of study, under the supervision of the division in which the major is taken. This course, planned and administered by the professor or adviser of the major subject, will advise, guide, and instruct the student in his reading, study, and laboratory exercises in order to assist him in gaining a coordinated knowledge of his field. It is a presentation of the content and methods of the major field as a whole through the organization and coordination of the knowledge obtained in the various formal courses in the major subject and of material not usually included in such courses. This course is not required. Six credit hours, but no qualitative grade, may be assigned. When registered in this course, the student will have the privilege of visiting, subject to the approval of the instructor, any other course offered in the College. (Regular attendance in a course, either for credit or as an auditor, requires registration and payment of tuition.) Proseminars are open only to the student who has been accepted as a candidate under that specific major.

#### THE MAJOR EXAMINATION

The Major Examination will normally be taken by the student at the close of the senior year; in the case of a student on a limited schedule, the Major Examination may be taken not earlier than one calendar year before graduation. A student who fails to pass a Major Examination may, at the discretion of the Columbian College Committee on Studies, be reexamined at a later regular major-examination period. The educational committees of the respective divisions will have general supervision of the preparation, reading, and grading of Major Examinations. Major Examinations will be held in each regular term on dates fixed by the respective educational committees, but in no case later than January 15 for the fall term, May 15 for the winter term, and August 7 for the summer term.

#### DEPARTMENTAL MAJORS

*Departmental Majors*, unlike Field-of-Study Majors, are specifically defined in terms of credit hours, required courses, and the attainment of a quality-point index of at least 2.50 in all second-group courses taken in the major field. The minimum specific requirements for De-



partmental Majors are listed below the staff of instruction of the department concerned in the section of the CATALOGUE devoted to courses of instruction. The Executive Officer of the Department, or his representative at registration, should be consulted concerning the student's program of courses, and the entire program, including electives, must be approved by the Department. The student is also expected to consult the Executive Officer or adviser in all matters affecting his program of studies, such as changes, substitutions, or withdrawals, and especially concerning his progress in his courses. As far as possible the close student-adviser relationship developed in the Field-of-Study Major will be cultivated also in Departmental Majors.

Until further notice Departmental Majors will be offered in the following: Art (Appreciation, Drawing and Painting), Botany, Chemistry, Economics, Geography, Germanic Languages and Literatures, Journalism, Mathematics, Physics, Political Science, Psychology, Religion, Sociology, and Speech (Public Speaking, Theatre, Speech Correction).

### THE MASTER'S DEGREES

Upon the satisfactory completion of the graduate requirements of Columbian College, the degree of Master of Arts or Master of Science is conferred.

#### DEFINITION OF THE MASTER'S WORK

The study leading to the degree of Master of Arts or Master of Science is a comprehensive survey of a field of knowledge. It is a continuation of the work of the student's undergraduate major and involves a greater acquaintance with scholarly method.

The student must satisfy certain minimum requirements as to previous preparation, residence, ability to read an approved modern foreign (European) language, and courses taken; but these requirements, while essential, are regarded primarily as qualifying measures. The student's knowledge of his field, as demonstrated by his thesis and by the results of his Master's Examination (together with such other examinations involving special skills or techniques as the department or division may require), is the basis upon which the Master's degree is conferred.

#### MASTER OF ARTS

Graduate work leading to the degree of Master of Arts is offered in the following fields:

American Literary and Cultural History, Bacteriology, Biochemistry,



Biology, Botany, Chemistry, Dramatic Art, Economics, English and American Literature, English Literature, French Literature, Geography, Germanic Languages and Literatures, History, International Relations, Latin American Civilization and Culture, Mathematics, Philosophy, Physics, Physiology, Political Science, Psychology, Sociology, Spanish American Literature, Spanish Literature, Statistics, Zoology.

Special programs involving coordinated work in two or more departments may be arranged with the approval of the appropriate division or divisions.

#### MASTER OF SCIENCE

Graduate work leading to the degree of Master of Science is offered in the following fields:

Bacteriology, Biochemistry, Biology, Botany, Chemistry, Mathematics, Physics, Physiology, Psychology, Statistics, Zoology.

Special programs involving coordinated work in two or more departments may be arranged with the approval of the appropriate division or divisions.

#### REQUIREMENTS FOR THE DEGREES

##### RESIDENCE

An academic year of residence in Columbian College is required, i.e., completion of a minimum of thirty credit hours of work including the thesis, which is counted as the equivalent of six credit hours of course work. Summer term work may be counted in residence, but in no case may the period of residence aggregate less than twenty-seven weeks. Not more than twelve credit hours (which must be approved in advance by the Dean of Columbian College) may be taken in another school or division of this University, and such work may not be counted toward both a degree in that school or division and the Master's degree in Columbian College. No part of the minimum requirement may be taken elsewhere. All work for the degree of Master of Arts or Master of Science must be completed within a maximum of three years, unless the Dean's Council considers the circumstances so unusual as to justify an extension of time.

##### SCHOLARSHIP

A student whose scholarship is unsatisfactory may be suspended by the Dean upon recommendation of the Division under which the student is working. Regarding the system of grading, see pages 36 and 37.

##### PROGRAM OF STUDIES

The student's program of studies must be outlined in detail at the beginning of his work, in triplicate, on forms available at the Office of the Dean. Each program is subject to the approval of the department and the division. The program may be revised as the occasion requires, but any change necessitates a repetition of the procedure just described.



Courses numbered from 1 to 100 may not be credited toward the Master's degrees, but may in certain instances be required as a basis for advanced work. (See "Explanation of Course Numbers".)

A student who expects to continue his studies for the degree of Doctor of Philosophy after receiving the Master's degree is strongly advised so to plan his program from the beginning that work for the lower degree may help to prepare him for the higher.

#### ADMISSION TO CANDIDACY

A student must be admitted to candidacy before he begins the last half of his work for the Master's degree. Application for admission to candidacy is made on a form obtained at the Office of the Registrar, and must be approved by the appropriate representative of the department or division and by the Dean. If a prospective candidate, in his previous academic work, has not substantially satisfied the prerequisites for the Master's degree, including the undergraduate major as defined by the appropriate department or division, he will not be admitted to candidacy until such deficiency has been made up. He may make up his deficiencies by electing appropriate courses in addition to those counted towards his degree.

Before being admitted to candidacy the student must also show that he has a reading knowledge (certified by the appropriate foreign-language department) of at least one modern foreign (European) language, selected by the division under which he is studying. A student whose field is a modern foreign language or literature may not offer that language in satisfaction of the reading-knowledge requirement. Examinations in modern foreign languages will ordinarily be given only on the dates specified in the University calendar. In exceptional circumstances the respective departments will arrange for examinations at other times.

#### THE MASTER'S THESIS

The thesis may be of a research, expository, critical, or creative type. The main purpose of a Master's thesis is to demonstrate the student's ability to make independent use of the information and training acquired through his other disciplines, and to furnish objective evidence of his constructive powers in his chosen field. Registration for the thesis must be no later than the beginning of the final year of preparation, unless the professor in charge of the thesis permits registration at the beginning of the final term. The choice of the thesis subject must be approved by the professor in charge of the student's field and recorded in the Office of the Registrar by the date announced in the University calendar. Registration for the thesis is ordinarily made on the basis of three credit hours a term for two successive terms. In exceptional cases, and with the approval of the professor in charge of the thesis, the student may register



for the entire six credit hours during a single term. The typewritten thesis in its final form must be submitted by the student for the approval of the professor in charge of the student's field and of the educational committee of the division concerned, not later than the date announced in the University calendar. Requirements regarding the form of the thesis are stated on page 40, and additional information will be supplied by the Dean.

Payment of tuition for the thesis entitles the candidate, during the academic year of registration, to the advice and direction of the member of the faculty under whom the thesis is to be written. In case a thesis is unfinished, an additional successive academic year may be granted without further tuition payment. If the preparation of the thesis extends beyond the two-year period the student must register for it again, and pay tuition on the same basis as for a repeated course.

#### THE MASTER'S EXAMINATION

In addition to such other examinations as may be required, the candidate must pass a general written examination on the major subject. Examinations will be held on dates fixed by the respective educational committees, but in no case later than January 15 for the fall term, May 15 for the winter term, and August 7 for the summer term. The provisions of the field-of-study plan for undergraduate majors which concern the general examination for the major also apply to the Master's Examination. A candidate who fails to pass the Master's Examination may, in exceptional circumstances and with the specific approval of the division concerned, repeat the examination, but only after the lapse of one term. If he fails a second time, no further opportunity to take the examination will be permitted.



## THE GRADUATE COUNCIL

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*

Robert Whitney Bolwell, Ph.D., *Chairman of the Graduate Council*

### MEMBERS OF THE COUNCIL

Thomas Benjamin Brown, Ph.D., *Professor of Physics*

Henry Grattan Doyle, A.M., LL.D., Litt.D., *Professor of Romance Languages*

Charles Sager Collier, A.B., LL.B., S.J.D., *Professor of Law*

Joseph Hiram Roe, Ph.D., *Professor of Biochemistry*

\*Edward Henry Sehr, Ph.D., *Professor of German*

Robert Whitney Bolwell, Ph.D., *Professor of American Literature*

James Henry Taylor, Ph.D., *Professor of Mathematics*

Elmer Louis Kayser, Ph.D., LL.D., *Professor of European History*

Errett Cyril Albritton, A.B., M.D., *Fry Professor of Physiology*

Donnell Brooks Young, Ph.D., *Professor of Zoology*

George Antony Gamow, Ph.D., *Professor of Theoretical Physics*

Warren Reed West, Ph.D., *Professor of Political Science*

\*Frank Mark Weida, Ph.D., *Professor of Statistics*

Francis Edgar Johnston, Ph.D., *Professor of Mathematics*

Leland Wilbur Parr, Ph.D., *Professor of Bacteriology*

Benjamin Douglass Van Evera, Ph.D., *Professor of Chemistry*

Mitchell Dreese, Ph.D., *Professor of Educational Psychology*

Winfred Overholser, A.B., M.D., Sc.D., *Professor of Psychiatry*

Saul Chesterfield Oppenheim, A.M., J.D., S.J.D., *Professor of Law*

Merle Irving Protzman, Ph.D., *Professor of Romance Languages*

Alva Curtis Wilgus, Ph.D., *Professor of Latin American History*

Florence Marie Mears, Ph.D., *Professor of Mathematics*

Wood Gray, Ph.D., *Professor of American History*

Thelma Hunt, Ph.D., M.D., *Professor of Psychology*

Ira Bowers Hansen, Ph.D., *Professor of Zoology*

Arthur Edward Burns, Ph.D., *Professor of Economics*

Paul William Bowman, Ph.D., *Professor of Biology*

Lawson Edwin Yocum, Ph.D., *Professor of Botany*

John Withrow Brewer, Ph.D., *Professor of International Law*

Louis Clark Keating, Ph.D., *Professor of Romance Languages*

Paul Kenneth Smith, Ph.D., *Professor of Pharmacology*

Samuel Nathaniel Wrenn, Ph.D., *Professor of Chemistry*

Charles Rudolph Naeser, Ph.D., *Professor of Chemistry*

Howard Maxwell Merriman, Ph.D., *Professor of American Diplomatic History*

\* On sabbatical leave winter term 1950-51.



- \*George Winchester Stone, Jr., Ph.D., *Professor of English Literature*  
 Fred Salisbury Tupper, Ph.D., *Professor of English Literature*  
 Warren Andrew, Ph.D., M.D., *Professor of Anatomy*  
 Chester Elwood Leese, Ph.D., *Professor of Physiology*  
 ‡Donald Stevenson Watson, Ph.D., *Professor of Economics*  
 Angus MacIvor Griffin, Ph.D., *Professor of Bacteriology*  
 William Webster Diehl, Ph.D., *Adjunct Professor of Mycology*  
 Antonio Alonso, A.M., *Associate Professor of Spanish*  
 Carleton Raymond Treadwell, Ph.D., *Associate Professor of Biochemistry*  
 Wolfgang Herbert Kraus, Dr.Jur., S.J.D., *Associate Professor of Political Science*  
 Curtis Edward Tuthill, Ph.D., *Associate Professor of Psychology*  
 Roderic Hollett Davison, Ph.D., *Associate Professor of European History*

CONSULTANTS IN RESEARCH

- Carl Robert Brewer, Ph.D., *Chief, Bacterial Nutrition Branch, Basic Sciences Division, Chemical Corps, Camp Detrick; Bacterial Nutrition*  
 Dean Burk, Ph.D., *Principal Chemist, National Cancer Institute; Tissue Respiration in Biochemistry*  
 Gerhard Colm, Dr. rer. pol., *Economist, Council of Economic Advisers, Executive Office of the President; Public Finance*  
 Paul Simon Galtsoff, Ph.D., *Senior Biologist, Fish and Wildlife Service, United States Department of the Interior; Invertebrate Zoology*  
 Fred Latimer Hadsel, Ph.D., *Office of German and Austrian Affairs, Division of German Political Affairs, United States Department of State; International Politics and Organization*  
 James Manson Hundley, B.S., M.D., *Assistant Chief, Laboratory of Biochemistry and Nutrition, and Chief, Section on Physiology and Biochemistry of Nutrition, National Institutes of Health; Physiology of Nutrition*  
 William Crane Johnstone, Jr., *Director of the Office of Educational Exchange, United States Department of State; International Relations: The Far East*  
 Thomas Carlyle Jones, B.S. in Veterinary Medicine, D.V.M., *Chief, Veterinary Pathology Section, Army Institute of Pathology; Comparative Pathology*  
 Solomon Kullback, Ph.D., *Chief, Research and Development Division, United States Department of Defense; Statistics: Multivariate Analysis*

\* On sabbatical leave 1950-51.

‡ On sabbatical leave winter term 1950-51.



- Ladislaus Laszlo Marton, Ph.D., *Physicist, Atomic Physics, Electronics Division, National Bureau of Standards; Electron Optics*
- Elliott Waters Montroll, Ph.D., *Head, Physics Branch, Office of Naval Research; Theoretical Physics*
- Waldo Lasalle Schmitt, Ph.D., *Head Curator of Zoology, United States National Museum; Invertebrate Zoology: Crustacea*
- Leonard Peter Schultz, Ph.D., *Curator of Fishes, United States National Museum; Vertebrate Zoology: Ichthyology*
- Lyman Bradford Smith, Ph.D., *Associate Curator, Division of Phanerogams, Department of Botany, Smithsonian Institution; Taxonomy*
- Alberto Vázquez, Ph.D., *Chief, North and West Coast Branch American Republics Area Division, United States Department of State; Latin American Literature*
- Henry Welch, Ph.D., *Chief, Division of Penicillin Control and Immunology, United States Food and Drug Administration; Antibiotics*
- Willard Hull Wright, D.V.M., Ph.D., *Scientist Director, United States Public Health Service, and Chief, Zoology Laboratory, National Institutes of Health; Parasitology*

## GENERAL INFORMATION

### INTRODUCTORY

The Graduate Council offers a program of advanced study and research leading only to the degree of Doctor of Philosophy. It was established in 1930 to replace the Graduate School which had formerly administered work for the Master's as well as the Doctor's degrees. The Graduate Council provides a doctoral discipline which moves freely across administrative lines dividing departments of instruction or fields of study. It gives personal supervision to a limited number of students, each of whom has his own consultative committee, examinations, and research direction.

### FIELDS OF RESEARCH

The following fields of research have been authorized by the Graduate Council as those in which doctoral investigations and dissertations may be undertaken. The supporting fields of study required of all candidates for the degree of Doctor of Philosophy are specified for each individual student by his Consultative Committee before admission to study under the Council.

This list of fields is subject to such change as the educational resources of the University may direct. The prospective student may address preliminary inquiries concerning his research interests to the member of the Council who is in charge of the field, or to the Chairman of the Graduate Council.



<b>Anatomy</b>	
(1) Gerontology; (2) Cytology	Andrew
<b>Bacteriology</b>	
(1) Intestinal Microbiology; (2) Immunity in Tuberculosis; (3) Problems in Medical Bacteriology with especial reference to Diagnostic Methods and Immunization	Parr
(1) Intestinal Microbiology; (2) Immunology: Antigenic Analysis	Griffin
Bacterial Nutrition	Brewer
Antibiotics	Welch
Virology	To be arranged
<b>Biochemistry</b>	
(1) Carbohydrate Metabolism; (2) Nutrition (emphasis on vitamins); (3) Pathological Chemistry	Roe
Lipids	Treadwell
Tissue Respiration	Burk
<b>Biology</b>	
Cytology	Bowman
<b>Botany</b>	
(1) Mycology; (2) Plant Pathology	Diehl
Plant Physiology	Yocum
Taxonomy	Smith
<b>Chemistry</b>	
Organic	Wrenn
Inorganic	Naeser
Physical: Solubilities	Van Evera
<b>Economics</b>	
Economic Theory: (1) Economic Fluctuations; (2) History of Economic Thought	Burns
Economic Policy: (1) Economic Planning; (2) Public Finance	Watson
(1) National Income; (2) Public Finance	Colm
International Economics	To be arranged
<b>History</b>	
European: Nationalism	Kayser
European: (1) Diplomatic since 1815; (2) The Modern Near East	Davison
United States: (1) Social; (2) Economic	Gray
United States: (1) Diplomatic; (2) Political	Merriman
Latin American: (1) Spanish and Portuguese Colonies in America; (2) Nineteenth and Twentieth Century History; (3) Inter-American Relations	Wilgus
<b>Law</b>	
Trade Regulation: Trade Practices and Antitrust Laws	Oppenheim
Jurisprudence	Collier
<b>Literatures and Languages</b>	
English: (1) Sixteenth Century Drama; (2) Seventeenth Century Drama	Tupper
English: Eighteenth Century Drama	Stone
American: Literary Nationalism	Bolwell
German: (1) Germanic Philology; (2) Comparative Philology	Sehrt
Romance: (1) Romance Linguistics; (2) Old and Middle French; (3) Old Spanish	Doyle



Romance: Modern Spanish Literature	Alonso
Romance: Latin American Literature	Vázquez
Romance: (1) Sixteenth Century French Literature; (2) Modern French Literature	Keating
Romance: Seventeenth Century French Literature	Protzman
<i>Mathematics</i>	
Algebra: Finite Groups	Johnston
Geometry: Differential Geometry	Taylor
Analysis: Infinite Series	Mears
<i>Pathology</i>	
Comparative Pathology	Jones
<i>Pharmacology</i>	
(1) Chemotherapy; (2) Drug Metabolism	Smith
<i>Physics</i>	
Experimental: Electronics	Brown
Electron Optics	Marton
Theoretical: (1) Relativity; (2) Nuclear; (3) Astrophysics	Gamow
Theoretical: The Solid State	Montroll
<i>Physiology</i>	
(1) Nutrition and Endocrines; (2) Cardiovascular System	Albritton
(1) Blood Pressure Studies; (2) Neuro-Muscular Studies	Leese
Physiology of Nutrition	Hundley
<i>Political Science</i>	
United States: (1) The Legislative Process; (2) Governmental Organization and Administration	West
International: The Far East	Johnstone
International: Comparative Government and Political Theory	Kraus
International: International Politics and Organization	Hadsel
International Law: (1) War and Neutrality; (2) Arbitration	Brewer
<i>Psychiatry</i>	
Problems of Treatment (M.D. degree required for admission.)	Overholser
<i>Psychology</i>	
(1) Personnel Psychology; (2) Counseling and Guidance	Dreese
(1) Psychological Measurements; (2) Abnormal Psychology	Hunt
Social Psychology	Tuthill
<i>Statistics</i>	
(1) Theoretical: Probability and Sampling; (2) Applied: Econometrics	Weida
Multivariate Analysis	Kullback
<i>Zoology</i>	
Invertebrate: Morphology and Embryology	Young
Invertebrate: Molluscan Morphology and Physiology	Galtsoff
Parasitology: Parasitic Protozoa	Wright
Vertebrate: Embryology and Morphogenesis	Hansen
Vertebrate: Ichthyology	Schultz
Invertebrate: Crustacea	Schmitt



## ADMISSION PROCEDURE

For admission the student must possess adequate preparation for advanced study, including satisfactory Bachelor's and Master's degrees, or the equivalent, together with acceptable personal qualities and a capacity for creative scholarship. Previous graduate study should have been in the same general field as that proposed for doctoral study.

Before applying, the student should have personal interviews with the Chairman of the Council and the professor in charge of the central field of study.

After application blank and transcripts of previous academic training have been filed the student must demonstrate his ability to read either French or German in the field of his major interest. Both French and German are required without exception, but only one at the time of admission. The student then meets his personal admission committee which makes its recommendations to the Council. The committee may specify additional prerequisites for the student's doctoral program.

## STUDY FOR THE COUNCIL FELLOWSHIP EXAMINATION

The discipline for the degree is divided into two stages. The first is made up of study in related fields of learning which support the general area of research concentration, culminating in the Council Fellowship Examination. The second stage is composed of research and investigation of a particular project in a special field and the presentation of such research in a written dissertation, culminating in the Final Examination.

At the beginning of the student's program of study leading to the Council Fellowship Examination, a consultative committee is assigned to direct his work in a group of fields of learning, usually five or six in number, deemed necessary to insure his breadth of knowledge and general competence for continuing independent research, as well as to support the dissertation project in his central field. Members of the consultative committee will advise the student concerning the scope and content of these supporting fields, and will assist the student in preparation for his examination in them.

This advanced study may be done by attending courses of instruction and graduate seminars, by conference with members of the student's committee, and by independent means. The examination, however, not credits or grades for work done in courses, is the sole test of the student's ability to enter upon the second phase of his doctoral discipline. The examination is a series of written tests usually extending over a period of one week. The major portion of a day is given to each part of the examination covering one of the fields of study on the student's program. If the results of the examination are satisfactory the student



is admitted as a Fellow of the Graduate Council, to pursue his specialized study and research under the supervision of a member of the Council.

#### RESEARCH, THE DISSERTATION, AND THE FINAL EXAMINATION

After the student has been inducted as a Fellow of the Council and his research program has been arranged, he is responsible only to the member of the Council who directs his research project. As a Fellow, he may attend general meetings of the Council and participate in the programs of research discussion, and enjoy unrestricted use of all the academic facilities of the University. When necessary, the Graduate Council makes provision for sending the Fellow to some other institution, library, or laboratory for special study in connection with his doctoral investigation.

The doctoral dissertation is required of all Fellows as evidence of ability to perform scholarly research and to interpret its results. An extended summary of the dissertation is published in a periodical volume by the University for distribution to other institutions and libraries. Printed copies of detailed regulations concerning the dissertation are supplied to all candidates for the doctorate.

When the completed dissertation has been approved by the member of the Council in charge of the research project, the Fellow is presented for his final examination. This examination is oral and open to the public. The committee of examiners includes not only members of the Council competent in the research field or in closely related subjects, but also at least two qualified experts from other research institutions brought to the University to participate in the examination. If the Fellow satisfies the examining committee concerning the high quality and originality of his contribution to knowledge as well as his mastery of the scholarship and research techniques of his field, the Council recommends him for the degree of Doctor of Philosophy.

#### POST-DOCTORAL STUDY

The Council expects its graduates to continue their interest in advanced study and research, and to contribute to its program. All graduates are listed as Associate Fellows and, upon request, will receive notices of all general meetings. They may continue any studies in the University without payment of tuition, and enjoy all University library privileges. Such graduates are required to pay only the usual residence fee in order to establish their active membership in the University. The use of laboratory space and equipment is contingent upon availability, and the cost of all laboratory or special library materials is paid by the graduate. Special arrangements for such privileges must be made with the Chairman of the Council. Post-doctoral work may not be applied toward any degree offered by the University.



## REGULATIONS

*Candidates and Fellows in the Graduate Council are subject to, and are expected to familiarize themselves with, the regulations regarding REGISTRATION, FEES AND FINANCES stated on pages 11-23, and the University regulations stated on pages 36-42.*

## RESIDENCE AND CONTINUOUS REGISTRATION

The Graduate Council expects all students to work on their doctoral programs in residence, although there is no formal regulation concerning the minimum amount of time of resident study either in preparation for the Council Fellowship Examination or as a Fellow of the Council engaged in doctoral research. The student who undertakes either part of the doctoral program on full or limited schedule must, in accordance with University regulations, maintain continuous registration under the Graduate Council even when the Council has granted a leave of absence for study or residence elsewhere. Failure to maintain registration in each term of the academic year disrupts the residence status of the student. In such a case, the student must reapply for admission to the Council, under whatever new conditions and regulations are set up by his consultative committee or the member of the Council who directs his research.

## TEACHING FELLOWSHIPS AND GRADUATE ASSISTANTSHIPS

A limited number of Teaching Fellowships are assigned annually to certain departments of instruction open to doctoral students registered under the Graduate Council. An announcement regarding qualifications and application for these fellowships will be sent upon request to the Office of the Graduate Council.

In many departments of instruction graduate assistants are appointed to assist in the academic program. Applicants should inquire directly of the executive officer of the department concerned regarding vacancies and details of appointment.

A pamphlet describing details of the Graduate Council program, together with a current list of fields of research offered by the Council, will be sent upon request to the Office of the Graduate Council.



## THE SCHOOL OF MEDICINE

### THE FACULTY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Walter Andrew Bloedorn, A.M., M.D., Sc.D., *Dean of the School of Medicine*  
Thomas Martin Peery, A.B., M.D., *Director of Postgraduate Instruction*

Joseph Hiram Roe, Ph.D., *Professor of Biochemistry*  
Walter Freeman, Ph.D., M.D., *Professor of Neurology*  
Walter Andrew Bloedorn, A.M., M.D., Sc.D., *Professor of Medicine*  
Errett Cyril Albritton, A.B., M.D., *Fry Professor of Physiology*  
Roger Morrison Choisser, B.S., M.D., *Professor of Pathology*  
Leland Wilbur Parr, Ph.D., *Professor of Bacteriology*  
Winfred Overholser, A.B., M.D., Sc.D., *Professor of Psychiatry*  
Frederick A. Reuter, M.D., *Professor of Urology*  
Harry Ford Anderson, M.D., *Professor of Dermatology and Syphilology*  
Daniel Bruce Moffett, A.B., M.D., *Professor of Oto-rhino-laryngology*  
John Parks, M.S., M.D., *Professor of Obstetrics and Gynecology*  
Preston Alexander McLendon, B.S., M.D., *Professor of Pediatrics*  
Brian Blades, A.B., M.D., *Professor of Surgery*  
Paul Kenneth Smith, Ph.D., *Professor of Pharmacology*  
James Winston Watts, B.S., M.D., *Professor of Neurological Surgery*  
Warren Andrew, Ph.D., M.D., *Professor of Anatomy*  
Chester Elwood Leese, Ph.D., *Professor of Physiology*  
Thomas McPherson Brown, A.B., M.D., *Professor of Medicine*  
Angus MacIvor Griffin, Ph.D., *Professor of Bacteriology*  
Ronald Atmore Cox, A.B., M.D., *Professor of Ophthalmology*  
Ernest Alfred Watson Sheppard, M.D., C.M., *Clinical Professor of Ophthalmology*  
Radford Brown, M.D., *Clinical Professor of Obstetrics and Gynecology*  
Thomas Carlton Thompson, B.S., M.D., *Clinical Professor of Urology*  
Daniel LeRay Borden, A.M., M.D., *Clinical Professor of Surgery*  
Thomas Martin Peery, A.B., M.D., *Associate Professor of Pathology*  
Carleton Raymond Treadwell, Ph.D., *Associate Professor of Biochemistry*  
William Woodrow Stanbro, M.D., *Associate Professor of Radiology*  
Charles Samuel Wise, B.S., M.D., *Associate Professor of Physical Medicine*  
William Staton Anderson, A.B., M.D., *Clinical Professor of Pediatrics*  
Victor Fred Ludewig, A.B., B.S., *Superintendent of the University Hospital*



COMMITTEES \*

THE DEAN'S COUNCIL

Joseph Hiram Roe

Brian Blades

Winfred Overholser

COMMITTEE ON ADMINISTRATION OF THE UNIVERSITY HOSPITAL AND  
OUTPATIENT DEPARTMENT

Walter Andrew Bloedorn, *Chairman*

John Parks  
Brian Blades

Thomas McPherson Brown  
Victor Fred Ludewig

COMMITTEE ON ADMISSIONS

John Parks, *Chairman*

Brian Blades

John McCallum Evans

COMMITTEE ON CURRICULUM

Thomas Martin Peery, *Chairman*

Leland Wilbur Parr  
John Parks  
Warren Andrew

Thomas McPherson Brown  
Brian Blades  
Clarence Richard Hartman

COMMITTEE ON GRADUATE STUDIES

Errett Cyril Albritton, *Chairman*

John Parks

Angus MacIvor Griffin

COMMITTEE ON LIBRARY

Chester Elwood Leese, *Chairman*

Thomas McPherson Brown  
Thomas Martin Peery  
John Parks

Carleton Raymond Treadwell  
Paul Calabrisi  
Brian Blades

Victor Fred Ludewig

COMMITTEE ON RESEARCH

Brian Blades, *Chairman*

John Parks  
Paul Kenneth Smith

Thomas McPherson Brown  
Angus MacIvor Griffin

Thomas Martin Peery

\* The President of the University and the Dean of the School of Medicine are members  
ex officio of all committees.



## COMMITTEE ON SCHOLARSHIP

John Parks, *Chairman*

Joseph Hiram Roe

Leland Wilbur Parr

Warren Andrew

## COMMITTEE ON INTERN AND RESIDENT TRAINING

Victor Fred Ludewig, *Chairman*

Thomas Martin Peery

Brian Blades

John Parks

Thomas McPherson Brown

## COMMITTEE ON HOSPITAL PRIVILEGES

Thomas McPherson Brown, *Chairman*

John Parks

Brian Blades

## ADVISORY COMMITTEE ON POSTGRADUATE INSTRUCTION

Thomas Martin Peery, *Chairman*

Walter Freeman

Brian Blades

Winfred Overholser

Thomas McPherson Brown

John Parks

Lewis Kaigler Sweet

## GENERAL INFORMATION

## INTRODUCTORY

The School of Medicine of The George Washington University was opened in March 1825; of the medical schools now in existence in the United States, it is the eleventh in chronological order of founding. The University Hospital and Dispensary were established in 1898 and made a part of the organization of the School.

The School is a member of the Association of American Medical Colleges and is one of the medical colleges which have been designated continuously as "class A" by the American Medical Association. The degrees of the School of Medicine are recognized by all state examining boards.

## PLAN OF INSTRUCTION

The work of the School is organized under the following departments: Anatomy; Anesthesiology; Bacteriology, Hygiene, and Preventive Medicine; Biochemistry; Dermatology and Syphilology; Medicine; Military Science and Tactics; Neurology and Neurological Surgery; Obstetrics and Gynecology; Ophthalmology; Oto-rhino-laryngology; Pathology;



Pediatrics; Pharmacology; Physical Medicine; Physiology; Psychiatry; Radiology; Surgery; and Urology.

The salient features in the method of instruction are thorough laboratory training, demonstrations, and clinical teaching, with recitations and lectures to clarify the many problems presented. Courses of clinical instruction are included in the announcements of the clinical departments. The clinical material in the various hospitals and outpatient departments is utilized to the fullest extent for both clinical instruction and laboratory work.

Each of the first three years of the medical curriculum is divided into two terms of sixteen weeks. The senior year includes, in addition, an eight-week summer term. One half of the senior class will begin the summer term immediately upon completion of the junior year; the other half will begin eight weeks later. Within certain limitations, the students may elect the period of attendance and the service of their assignment. There will be no formal classes or examinations during this period.

#### EQUIPMENT AND FACILITIES

*The George Washington University Hospital.*—The hospital, with a capacity of 400 beds, was opened in 1948. This splendid edifice, which is one of the outstanding hospitals in the United States, is completely furnished with the latest and most scientific apparatus and equipment. Its purpose is to supplement existing hospital resources in the District of Columbia for the care of the sick and the injured; the education of physicians, nurses, and technicians; and the advancement of medical knowledge.

The hospital is staffed and controlled by the Faculty of the George Washington University School of Medicine and it provides excellent clinical material for the instruction of medical students. Virtually every specialty in the fields of medicine and surgery has assigned space and equipment in both the outpatient department and the bed-patient section of this modern institution.

*Medical School Building.*—The building housing the School of Medicine is a five-story structure with lecture rooms and classrooms, laboratories, and students' rooms.

*Laboratories.*—A four-story laboratory building is adjacent to the main medical building. The major laboratories are for anatomy, histology and embryology, bacteriology, hygiene and preventive medicine, biochemistry, pathology, pharmacology and physiology, and clinical microscopy. They are fully equipped to enable students to pursue adequately the laboratory courses and to acquire the technical skill necessary in modern clinical and investigative work.

*Research Building.*—The Research Building houses the George Washington University Cancer Clinic and special laboratories concerned with



the biochemical, physiological, and cytological aspects of cancer research; the surgical and anesthesia research laboratories; a laboratory for radio-isotope investigation; and research laboratories of the Physiology, Neurology, and Cardiovascular departments.

*Medical Library.*—The Medical Library contains a selected reference collection of more than 10,000 volumes, currently obtains important new medical works, and regularly receives the principal medical journals.

Inter-library loan service is maintained by close cooperation with other medical and scientific libraries throughout Washington and vicinity.

The Medical Library is open from 9:00 A.M. to 9:00 P.M. each class day, Monday through Friday, and from 9:00 A.M. to 1:00 P.M. Saturday.

The Medical Library maintains a branch in Room 6037-A of the University Hospital for reference, research, and inter-library loan service. It is open from 2:00 to 6:00 P.M. Monday through Friday.

#### GOVERNMENT LIBRARIES AND MUSEUMS

The Library of the Surgeon General's Office of the United States Army is the most complete general medical library in the world. In addition to its great collections of medical works, all leading medical periodicals of the world are available. This Library, as well as the Library of Congress, the Public Library, and the many excellent libraries of the various government departments, is available to students and teachers through a service maintained by the Medical School Library.

The Army Medical Museum affords opportunity for studying the conditions met in military and general medicine and surgery. Its collection of anatomical and pathological specimens is unequaled by any other museum in this country. The Museum of Hygiene, the National Museum, the Smithsonian Institution, the Botanic Gardens, and the Department of Agriculture all afford opportunities for study in Medicine and its allied sciences.

#### CLINICS

The city of Washington, with about a million inhabitants, provides ample clinical material. The University Hospital and Outpatient Department furnish clinical facilities and a large proportion of the materials studied in the courses in pathology and clinical pathology.

*The University Hospital.*—All clinics are under the supervision of the Dean, who is also Medical Director of the Hospital. This insures the highest possible utilization of available clinical material for teaching purposes and the proper supervision of clinicians and students; it brings the individual student into direct contact with patients and requires him to do, under authoritative supervision, the clinical and laboratory work necessary for diagnosis and treatment; and it permits proper interpretation of the conditions occurring during the progress of cases and promotes



the keeping of adequate records. Clinical and clinico-pathological conferences are held in which the history of cases, the physical findings, laboratory records, and the post-mortem pathology when available, are presented and correlated.

*The Outpatient Department.*—The Outpatient Department has clinical facilities for each Service in the Hospital. Fourth-year students are assigned in rotation by section for clinical instruction in the Outpatient Department.

*Cancer Clinics.*—The facilities of the Cancer Detection Clinic are available to medical students. In addition the diagnosis and treatment of various forms of neoplasms are presented. The results of the treatment of neoplasms are evaluated by follow-up studies.

The Helen L. and Mary E. Warwick Memorial, for cancer and allied diseases, was affiliated with The George Washington University in July 1948. The purposes of this clinic are (1) to provide care for cancer patients, through group consultations within a cancer organization, and (2) to provide training for physicians in the field of oncology.

*Gallinger Municipal Hospital.*—Clinical instruction is available in all branches of medicine. A great wealth of clinical material is afforded in this hospital and by ordinance of the municipal authorities of the District of Columbia, members of the Faculty of this School of Medicine, who are nominated by this University, are assigned approximately one-third of the patients for treatment and clinical study. Third-year students serve their clinical clerkships at this institution.

*Childrens Hospital.*—Clinical instruction in pediatrics, dermatology, and orthopedic surgery.

*Emergency Hospital and Central Dispensary.*—Clinical instruction in medicine, surgery, and the specialties.

*St. Elizabeths Hospital.*—Clinical instruction in mental and nervous diseases, medicine, post-mortem work, and gross pathology. This hospital, with 6,577 beds, is maintained by the United States Government. The psychiatric clinic is one of the largest in the world.

*Mt. Alto Hospital.*—Clinical instruction in medicine and surgery is available and fourth-year students are assigned in rotation by sections for clinical clerkships.

*Walter Reed General Hospital.*—Clinical instruction is available in all branches of medicine and surgery. Fourth-year students are assigned in rotation by sections for clinical instruction.

#### ADMISSION, REGISTRATION, FEES AND FINANCIAL REGULATIONS

*Students in the School of Medicine are subject to, and are expected to familiarize themselves with, the regulations stated on pages 11-23.*

*Registration in the School of Medicine is for a period of one academic*



year. After the student has entered the courses of instruction he is obligated for the full tuition for the academic year. No part of the tuition will be refunded upon withdrawal or dismissal for any cause. Acceptance by the School of a student's fees does not in any way obligate the School to accept the student for any subsequent year.

A fee of \$3 to defray the costs of completing the records for final consideration for admission must accompany each application. This fee applies to students whose premedical training was completed at this University as well as to students who have not previously attended this University. Fees for each term are \$325, payable in advance.

Because the number of applicants far exceeds the limit of each class, places can be reserved for only those qualified applicants who remit a deposit of \$100 which will be credited toward the tuition of the first term. Should the matriculant be unable to attend, this initial payment, less a charge of \$50 for registration, transfer, etc., will be returned up to one month before the opening of the term.

Credit for work will not be given until, at the completion of a laboratory course, the student has replaced or paid for all articles of equipment or other University property which he has lost, broken, or destroyed. All breakage or loss not directly traceable to an individual student is assessed pro rata.

#### COST OF TEXTBOOKS AND STUDENT EQUIPMENT

The minimum cost of necessary textbooks and student equipment (microscope, drawing materials, glass slides, clinical thermometer, stethoscope, hemocytometer, etc.) is approximately as follows: first year, \$400; second year, \$250; third year, \$90; fourth year, \$80; total \$820.

A fee of \$1 a term is charged for the use (optional) of a locker.

#### REGULATIONS

*Students in the School of Medicine are subject to and are expected to familiarize themselves with, the general University regulations stated on pages 36-42.*

#### ABSENCE

Absence is not allowed unless an excuse is obtained from the Dean or the instructor.

Absence consists in being away from a class or clinic during a scheduled period, entering after the class or clinic has begun, or leaving before either is dismissed.

Excuse for absence due to sickness must be accompanied by a certificate signed by the attending physician and must be filed in the office of the Dean.



For every unexcused absence a department will deduct one-half of one per cent from the student's final grade in the subject involved.

#### GRADES

The following grading system is used: *A* (90-100); *B* (80-89); *C* (75-79); *D* (65-74) condition; *E* (below 64) failure; *Inc.*, incomplete. The passing grade in each subject is *C*.

A student who is conditioned in any subject will not be advanced until such condition is removed and then only by authority of the Committee on Scholarship. All conditions must be removed at the next make-up examination period provided for this purpose.

#### EXAMINATIONS

Examinations, which may be written, oral, or practical, will be held at the end of each term.

A student who fails to appear at a regularly scheduled final examination will not be examined until the next regular examination, except by special permission of the Committee on Scholarship. For make-up examinations to remove conditions, a fee of \$5 will be charged for each subject.

All students in the School of Medicine are required to take Part I and Part II of the National Board Examinations, except that students from those states and foreign countries which do not recognize the National Board may be exempted from Part II by action of the Committee on Scholarship.

#### PHYSICAL EXAMINATIONS\*

All first-year students are given a comprehensive physical examination upon admission to the School of Medicine. The students are informed of the findings and advised regarding such measures as will tend to maintain a high standard of health.

In addition medical students benefit from the complete Tuberculosis Case Finding Program which the School has maintained since 1938-39. Under this program all students receive tuberculin tests, X-ray examinations, and such special attention from chest specialists as is necessary to reduce to a minimum the dangers from tuberculosis to which medical students are believed to be subject. Students are immunized against those diseases for which proven prophylactics exist.

\* A charge of \$2 is made if a student fails to appear for a physical examination during the period set for this purpose.



RESERVE OFFICERS' TRAINING CORPS, U. S. ARMY,  
MEDICAL UNIT

A Medical Unit of the Reserve Officers' Training Corps is established in this School by authority of the Secretary of the Army, and an officer of the Medical Corps of the Army is detailed to the University for supervision and instruction of the unit.

The instruction is divided into two two-year courses, the basic and the advanced. Each course consists of 90 hours a year—58 hours of prescribed medical instruction given by the Medical School and 32 hours of military medical instruction. Students who satisfactorily complete the basic course may, up to the quota allowed by the Department of the Army, enter the advanced course. Students in the advanced course receive, from the Government, a stipend of approximately \$700.

Students in the advanced course are required to complete the course and to attend a summer training period of six weeks.

A student who successfully completes the course is recommended for a commission in the Medical Corps Reserve, if he desires appointment. It is the policy of the Department of the Army to give preference to graduates of this course in the selection for Army internship.

Membership in the Unit, which is voluntary, is open to any physically fit male student who is a citizen of the United States and who is, at the time of enrollment, within the following specified age limits; under 26 years of age for the basic course, under 29 for the advanced course. For veterans of World War II, there is no age limit until January 1, 1952, for the advanced course. Veterans with a minimum of six months' service receive credit for the first year of the basic course; those with a minimum of twelve months' service receive credit for both years of the basic course.

THE DEGREE OF DOCTOR OF MEDICINE

Upon the satisfactory completion of the requirements of the School of Medicine, the degree of Doctor of Medicine is conferred.

REQUIREMENTS FOR THE DEGREE

Every candidate for graduation with the degree of Doctor of Medicine must be at least twenty-one years of age, of reputable character, and free of all indebtedness to the University. He must have satisfied the admission requirements, completed satisfactorily not less than four academic years of study as a matriculated student in Medicine, completed all required courses, and passed satisfactorily all prescribed examinations.



#### COMBINED ARTS AND MEDICINE CURRICULUM

In order to be recommended for the degree of Bachelor of Arts, the candidate must complete at least ninety credit hours of prescribed college work (at least thirty credit hours and one year of residence must be completed in Columbian College, the senior liberal arts college), and the first year of the medical curriculum. Upon satisfactory completion of the fourth year of the medical curriculum the student becomes eligible for the degree of Doctor of Medicine.

#### HONORS

A candidate who has completed the four-year medical course with an average grade of *A* may be recommended for graduation "with distinction."

#### INTERN AND RESIDENT TRAINING PROGRAM

The George Washington University offers twenty internships which are divided into two categories of ten straight medical and ten straight surgical. All interns, regardless of the Service to which they are assigned, will be given a period of training in obstetrics and gynecology.

Accredited resident training will be offered in Anesthesiology, Medicine, Neurology, Obstetrics and Gynecology, Ophthalmology, Oral Surgery, Pathology, Radiology, and Surgery.

#### POSTGRADUATE INSTRUCTION

The School of Medicine offers annually a series of short intensive postgraduate courses, varying somewhat from year to year. The series is designed for physicians in practice. The significant advances in the various specialties are presented, together with summaries of older information. A distinguished Guest Faculty supplements the Staff of the Medical School.

The Kellogg Medical Lectures, inaugurated in 1948, are a series of evening lectures and clinics, designed primarily for physicians practicing in Washington and vicinity. They are also attended by the Faculty, postgraduate students, and members of the senior class of the School of Medicine.

During the academic year 1948-49 approximately 500 physicians were enrolled in postgraduate courses. For application blanks and further information, address the Director of Postgraduate Instruction, The George Washington University Hospital, Washington 7, D. C.



## TECHNICIAN TRAINING COURSES

## ORTHOPTIC TECHNICIAN TRAINING COURSE

A six-month course, of 675 hours of clinical and classroom work, is offered for the training of orthoptic technicians by the Department of Ophthalmology.

## MEDICAL TECHNOLOGISTS COURSE

The course for medical technologists consists of twelve consecutive months of didactic and practical work in all phases of clinical laboratory technique. The course meets the full requirements of the Registry of Medical Technologists of the American Society of Clinical Pathologists. Prerequisites are 60 credit hours (two academic years) of college work including required credits in biology and chemistry.

Two classes are accepted each year, one entering in September and the other in February. Enrollment in each class is strictly limited so that personal instruction can be given.

Upon satisfactory completion of the course a certificate is awarded and the candidate is eligible for the certifying examination given by the Registry of Medical Technologists.

For application blanks and further information, address the Director of Laboratories, The George Washington University Hospital, Washington 7, D. C.



## THE LAW SCHOOL

### THE FACULTY AND STAFF OF INSTRUCTION \*

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Oswald Symister Colclough, B.S., LL.B., LL.D., *Dean of the Law School*  
*Assistant Dean of the Law School*  
Louis Harkey Mayo, B.S., LL.B., *Secretary of the Law School*

William Cabell Van Vleck, A.B., LL.B., S.J.D., LL.D., *Professor of Law*  
Charles Sager Collier, A.B., LL.B., S.J.D., *Professor of Law*  
William Thomas Fryer, A.B., LL.B., J.D., *Professor of Law*  
Saul Chesterfield Oppenheim, A.M., J.D., S.J.D., *Professor of Law*  
Carville Dickinson Benson, A.B., LL.B., S.J.D., *Professor of Law*  
James Forrester Davison, A.B., LL.B., LL.M., S.J.D., *Professor of Law*  
James Oliver Murdock, Ph.B., LL.B., *Professor of Law*  
Oswald Symister Colclough, B.S., LL.B., LL.D., *Professor of Law*  
George Bowdoin Craighill, A.B., LL.B., *Adjunct Professor of Law*  
James Ward Morris, A.B., *Adjunct Professor of Law*  
James Robert Kirkland, A.B., LL.B., LL.M., *Adjunct Professor of Law*  
Bolitha James Laws, LL.B., LL.M., *Adjunct Professor of Law*  
Conder Caywood Henry, A.B., LL.B., *Adjunct Professor of Law*  
John Wingfield Jackson, B.S., LL.B., *Adjunct Professor of Law*  
Elliott DeJarnette Marshall, LL.B., *Adjunct Professor of Law*  
Frank Hammett Myers, LL.B., LL.M., *Adjunct Professor of Law*  
Alvin Leroy Newmyer, LL.B., *Adjunct Professor of Law*  
John Albert McIntire, A.B., LL.B., *Professorial Lecturer in Law*  
Justin Lincoln Edgerton, A.B., LL.B., *Professorial Lecturer in Law;*  
*Clerk of the Moot Court*  
Karl Rhorer Price, A.B., LL.B., *Professorial Lecturer in Law*  
Philip Field Herrick, A.B., LL.B., LL.M., *Professorial Lecturer in Law*  
Raymond Stevens Smethurst, B.S., LL.B., *Professorial Lecturer in Law*  
Francis Gerald Toye, B.S. in E.E., LL.B., *Professorial Lecturer in Law*  
George Edward Monk, A.B., LL.B., LL.M., *Professorial Lecturer in*  
*Law*  
Louis Loss, B.S., LL.B., *Professorial Lecturer in Law*  
Charles Sylvanus Rhyne, LL.B., *Professorial Lecturer in Law*  
Jennings Bailey, Jr., LL.B., *Professorial Lecturer in Law*  
Robert McKinney Cooper, Ph.M., J.D., *Associate Professor of Law*

\* The President of the University, the Dean and the Assistant Dean of the School, the Registrar of the University, the Director of Admissions of the University, Professors, Adjunct Professors, Associate Professors, and Assistant Professors constitute the Faculty.



Leroy Sorenson Merrifield, A.B., LL.B., M.P.A., *Associate Professor of Law*

John Patrick Burke, A.B., LL.B., *Associate Professor of Law*

Herman Israel Orentlicher, A.B., LL.B., *Associate Professor of Law*

\*John Theodore Fey, LL.B., M.B.A., *Associate Professor of Law*

David Benson Weaver, A.B., LL.B., *Assistant Professor of Law*

William Lester Griffin, A.B., LL.B., LL.M., *Assistant Professor of Law*

Louis Harkey Mayo, B.S., LL.B., *Assistant Professor of Law*

Arthur Selwyn Miller, A.B., LL.B., *Assistant Professor of Law*

William Leigh Ellis, A.B., LL.B., LL.M., *Lecturer in Law*

John Alexander Kendrick, A.B., LL.B., *Assistant Clerk of Moot Court*

#### COMMITTEES‡

##### THE DEAN'S COUNCIL

Carville Dickinson Benson

Charles Sager Collier

James Forrester Davison

William Thomas Fryer

Leroy Sorenson Merrifield

James Oliver Murdock

Saul Chesterfield Oppenheim

William Cabell Van Vleck

##### COMMITTEE ON ADMISSIONS

Carville Dickinson Benson, *Chairman*

Saul Chesterfield Oppenheim

Harold Griffith Sutton

##### COMMITTEE ON GRADUATE STUDIES

Charles Sager Collier, *Chairman*

James Forrester Davison

James Oliver Murdock

Saul Chesterfield Oppenheim

##### COMMITTEE ON SCHOLARSHIP

Herman Israel Orentlicher, *Chairman*

Carville Dickinson Benson

Leroy Sorenson Merrifield

##### LIBRARY COMMITTEE

James Oliver Murdock, *Chairman*

Robert McKinney Cooper

David Benson Weaver

\* On leave of absence 1950-51.

‡ The President of the University and the Dean and the Assistant Dean of the Law School are members ex officio of all committees.



## GENERAL INFORMATION

## INTRODUCTORY

The George Washington University Law School, established in 1826, discontinued, and reorganized in 1865, is the oldest law school in the District of Columbia. Its course of instruction is planned to prepare its graduates for the practice of law in any of the states of the United States or in foreign countries, the law of which is based on the Anglo-American legal system. It is also designed to prepare students for public service as lawyers in the Federal Government or the governments of the states. In 1900 the School took part in the organization of the Association of American Law Schools and it has been a member of the Association since that time. The School is approved by the Section of Legal Education and Admission to the Bar of the American Bar Association.

## THE LIBRARY

The Law School Library of 27,000 volumes contains the official reports of the decisions of the courts of last resort of all the states prior to the National Reporter System and of fourteen states complete to date; the National Reporter System, complete; the reports of the United States Supreme Court and lower federal courts, and the reports of federal administrative agencies; Shepard's Citations for the units of the Reporter System; the English Reprint and English Law Reports; the United States Statutes; the United States Code, Annotated, and the Federal Code, Annotated; reasonably complete sets of statutes of all of the states; the English statutes; the principal English and American digests and encyclopedias; collections of special reports and annotated cases; and the leading textbooks and legal periodicals.

The Library, which is on the fourth floor of Stockton Hall, is open from 9:00 A.M. to 10:00 P.M. each class day (Saturday, 9:00 A.M. to 5:00 P.M.), and from 2:00 to 6:00 P.M. on Sunday. Books and other materials do not circulate and must be used in the Library.

## THE LAW REVIEW

*The George Washington Law Review*, published by the University, is edited by the Faculty and students of the Law School. It is devoted exclusively to state and federal public law. The location of the University in the national Capital, where the primary sources of federal public law may be observed in operation, affords an unexcelled opportunity for specialization in this field.

The *Review* is edited by a faculty editor-in-chief, a faculty board of associate editors, a board of departmental advisory editors, and a board



of student editors. The student editors are chosen each year on the basis of scholarship.

#### RESEARCH IN PUBLIC LAW

Washington, the capital of the Nation, furnishes unsurpassed advantages for research in the fields of public law. In it are the offices of the major executive departments, the Congress, the Supreme Court of the United States, and four lower federal courts. In the executive departments and among the many independent establishments of the Federal Government there have been estimated to be between seventy-five and one hundred agencies, the activities of which involve the various branches of public law, particularly administrative law. The student of public law can study at first hand the work of these administrative agencies. He also has available as sources for investigation their records of administrative adjudications.

Research in public law will be conducted under the supervision of members of the faculty. The purpose of this research is to furnish means for training specialists in public law, either as government lawyers or as lawyers representing individuals or corporations in cases in which the Government is a party, and to assist in the analysis, clarification, formulation, and improvement of public law, substantive and procedural.

Candidates for the graduate degrees in the Law School and seniors who are eligible for the degree of Juris Doctor may pursue this work. Other students may be admitted with the special permission of the professor in charge.

#### COURSE OF STUDY FOR FOREIGN LAWYERS

This course of study is designed to meet the needs of lawyers who come from countries, the legal systems of which are based on the Roman or Civil Law. The objective is to provide an opportunity for such students to acquire an understanding of the fundamentals of the common law so that they may work intelligently with its materials and practitioners. In this program the students are not assigned to special classes but work in association with other students in the regular law subjects. No fixed program of courses is required. Each student's program is adapted to his individual needs.

#### THE STUDENT BAR ASSOCIATION

Every student in the Law School is required to be a member of the Student Bar Association. This is organized to enable the student to become better acquainted with problems of the profession, to develop better professional ideals, and to bring about closer contact with members of the profession engaged in active practice of the law.



The work of the Student Bar Association is carried on by various committees and by group and general meetings of a professional and social nature. From time to time lectures are given by outstanding authorities on legal and professional problems.

The Placement Committee of the Student Bar Association cooperates with the University Placement Office in assisting students and graduates of the Law School to find employment.

#### PRACTICE AND PRACTICE COURT

The curriculum is planned to include such training in the fundamentals of practice as is feasible in a law school. Classroom instruction is conducted in the theories of pleading and procedure, trial and appellate practice, and evidence. This instruction includes grounding in the principles of the new Federal Rules of Civil Procedure. In addition each senior student is required to participate in the work of the Practice or Moot Court. This includes trying a specified number of cases, both as a senior counsel and junior counsel. For students who are planning to practice patent law, a special section of the court is devoted exclusively to the trial of patent cases. Experience in preparing and arguing appellate court cases is also available through the Case Club Competition.

#### ORDER OF THE COIF

The Order of the Coif, a national honor society with chapters in thirty-eight law schools, aims "to foster a spirit of careful study and to mark in a fitting manner those who have attained a high grade of scholarship". The George Washington University Chapter was established in 1926. Members are elected each year from the highest-ranking 10 per cent of the graduating class of the Law School.

#### REGULATIONS

*Students in the Law School are subject to, and are expected to familiarize themselves with, the following regulations and the regulations concerning ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 11-23, and the University regulations stated on pages 36-42.*

#### ORGANIZATION OF THE YEAR

The work of the year is organized into three terms known as the fall term, winter term, and summer term. The summer term is divided into two eight-week sessions, which together constitute a full term.

#### HOURS OF INSTRUCTION

Forenoon classes are held from 9:10 A.M. to 1:00 P.M.

Primarily for the accommodation of employed students, a regular course may be taken in classes held from 5:50 to 7:40 P.M.



#### AMOUNT OF WORK

Students without substantial outside employment may take a program of studies of fourteen hours a week in which the majority of credit hours must be in the morning sections. Students with substantial outside employment must take a limited program of studies not exceeding ten hours a week. Students taking a majority of their classes in the evening may not take more than ten credit hours a week.

#### ATTENDANCE

Regular attendance on classes is required and is necessary for successful work. A student who is deficient in class attendance in any subject may, by action of the Faculty, be barred from taking the examination in that subject.

#### RESIDENCE REQUIREMENTS

Attendance in the morning classes for the fall and winter terms is counted as residence for an academic year. Attendance in the evening classes for the fall and winter terms is counted as residence for three-fourths of an academic year. A morning student enrolled in a schedule of less than ten hours a week will receive residence credit in the ratio that the hours passed bear to ten. An evening student enrolled in a schedule of less than six hours a week will receive residence credit in the ratio that the hours passed bear to six. Attendance throughout the summer term, morning or evening, is counted the same for residence purposes as like attendance during the fall or winter term.

No student admitted with advanced standing will be recommended for the degree of Bachelor of Laws until he has completed in this School at least one year of residence and passed successfully twenty-eight credit hours with the average required for the degree.

#### EXAMINATIONS

Written examinations are held at the end of each course. Every student is required to take the regular examinations in the subjects pursued, unless excused. No excuse for absence will be granted except by the Dean and then only for illness or other emergency. Application for excuse must be made in writing not later than one month after the date of the examination. A grade of *NG* (no grade) will be entered on the record of a student thus excused, and he may take the next regularly scheduled examination in the subject for which the excuse has been granted.

No special examinations will be given; except that, upon written application to the Faculty, showing sufficient cause, a candidate for a degree at a convocation before the next regular examination, if he would be



entitled to take a postponed examination, may, at the discretion of the Faculty, be given a special examination.

If a student fails to take an examination, a grade of *F* (to be counted as zero) will be recorded, unless the student has obtained the Dean's permission to drop the course according to regulations stated on pages 37 and 38, or to be excused from the examination.

#### GRADES

Grades are indicated by the letters *A*, excellent, 85-100; *B*, good, 75-84; *C*, satisfactory, 65-74; *D*, poor, 55-64—below standard for graduation; *F*, failed—below 55; and *NG*, no grade—student excused from failure to take regularly scheduled examination. See "Examinations" above, for grade upon failure to take an examination.

The grades *A*, *B*, *C*, and *D*, mean that the work has been completed and credit given for the subjects.

*F*, failed, means that no credit will be given. To obtain credit the student must repeat the subject; but a student who has obtained an average of *C* in the work of an academic year and received a grade of *F* in only one subject may take the next regular examination in that subject, and if on such reexamination he obtains a passing grade he will be given credit in the subject. Both grades are recorded.

#### EXCLUSION AND PROBATION FOR POOR SCHOLARSHIP

A student who during two successive terms fails in courses aggregating eight or more credit hours will be excluded at the end of the term for which he is currently registered. Such a student is not eligible thereafter to be registered in the Law School or to attend classes. After exclusion he may, however, with the consent of the Faculty, be admitted to the next regular examinations in those subjects in which he has made a grade below passing, and if he receives a grade of passing in these subjects with an average sufficient to make his general average not less than *C*, he will be reinstated.

A student not subject to exclusion under the foregoing rule who at any time fails to maintain a general average of at least *C*, will be on probation during the next two terms in which he is registered. A student on probation may at the discretion of the Dean be required to reduce his program of study. If a student on probation does not make, during the probationary period, grades sufficient to give him a general average of at least *C*, he will be excluded at the end of the term for which he is currently registered.

The general average of a student includes all the grades in all the subjects taken while he is in the Law School as a candidate for a particular degree. When a subject is repeated or a reexamination is taken, both the first grade and the subsequent grade or grades are counted in the general average.



In special cases in which it is clear that the student's failure does not indicate lack of ability to pursue the study of law, the student who has become subject to exclusion may be readmitted by the Faculty.

#### CLASSIFICATION OF STUDENTS

Students are divided into classes on the completion of credit hours as follows: first year, one through twenty-eight; second year, twenty-nine through fifty-six; third year, fifty-seven or more.

### THE DEGREES

#### IN THE PROFESSIONAL COURSE

These degrees are Bachelor of Laws (LL.B.) and Juris Doctor (J.D.).

#### REQUIREMENTS FOR THE DEGREE OF BACHELOR OF LAWS

To be recommended for this degree the student must have completed: a residence period of not less than three academic years (four years for evening students) and eighty credit hours, with a general average of at least *C*, including the course in Moot Court.

#### REQUIREMENTS FOR THE DEGREE OF JURIS DOCTOR

This degree is conferred as a recognition of the completion at the George Washington University Law School, with high rank, of the full professional course including experience in research and legal authorship. To be recommended for this degree the student must have completed: (1) a residence period of not less than three academic years (four years for evening students) in the Law School; (2) eighty credit hours with a general average of at least *B* including the course in Moot Court and one of the following courses: Comparative Law, Jurisprudence, or one of the graduate seminars; and (3) one year of acceptable service on the board of student editors of *The George Washington Law Review*, election to which is subject to regulations laid down by the Faculty. Students taking the combined Arts and Law or Engineering and Law courses are not eligible for this degree.

#### HONORS

The degree of Bachelor of Laws or of Juris Doctor "with distinction" will be awarded students who obtain a general average of *A* in the work for the degree.

#### IN THE GRADUATE COURSE

These degrees are Master of Laws (LL.M.), Master of Comparative Law (M.Comp.L.), and Doctor of Juridical Science (S.J.D.).



## REQUIREMENTS FOR THE DEGREE OF MASTER OF LAWS

To be recommended for this degree the student must have completed a residence period of not less than two terms. Such residence should normally be continuous. All requirements for the degree must be completed in this Law School and in a period not exceeding two years after registration for work for the degree. The student must have completed with a minimum average of *B* twenty credit hours in courses listed in the law curriculum as graduate subjects (in the 400 group) except that in individual cases third-year subjects may be approved for inclusion in the program of study if not previously taken.

## REQUIREMENTS FOR THE DEGREE OF MASTER OF COMPARATIVE LAW

To be recommended for this degree the student must have completed a residence period of not less than one academic year. He must have completed satisfactorily twenty-four credit hours in approved subjects in the curriculum of the Law School or of such other departments of the University as the Faculty of the Law School shall approve.

REQUIREMENTS FOR THE DEGREE OF DOCTOR  
OF JURIDICAL SCIENCE

To be recommended for this degree the student must have completed a residence period of not less than one academic year. He must have pursued a course of study and research designated by his consultative committee and approved by the Committee on Graduate Studies. At the conclusion of his first year of residence, or at such other time as the Committee on Graduate Studies may set, the candidate must pass an oral examination in those fields of study selected by the consultative committee. This examination shall be conducted by the consultative committee and such other members of the Faculty and qualified experts from other research institutions as may be selected by the Committee on Graduate Studies.

Not later than the date specified in the University calendar the candidate must submit to the Dean one typewritten original and two legible and complete carbon copies of his dissertation in its final form. The dissertation must contain a summary of from 2,500 to 3,000 words inserted as an appendix. An additional original typewritten copy of this summary must be submitted for publication. To be acceptable the dissertation must, in the opinion of the examining committee, constitute a substantial contribution to the field of law concerned and be suitable for publication. Additional information will be supplied by the Chairman of the Committee on Graduate Studies.

The summaries of accepted dissertations will be printed in a volume forming a number of the University BULLETIN. The successful candidate for the doctorate is required, before receiving his degree, to pay a fee to cover the expense of printing the summary of his dissertation.



## THE SCHOOL OF ENGINEERING

### THE FACULTY AND STAFF OF INSTRUCTION \*

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Frederick Morris Feiker, B.S. in E.E., D.Eng., *Dean of the School of Engineering*

Carl Hugo Walther, B.E., M.C.E., *Assistant Dean of the School of Engineering*

---

Thomas Benjamin Brown, Ph.D., *Professor of Physics*

Arthur Frederick Johnson, M.E., Ph.D., *Professor of Mechanical Engineering*

Norman Bruce Ames, M.S., E.E., LL.B., *Professor of Electrical Engineering*

James Henry Taylor, Ph.D., *Professor of Mathematics*

‡Frank Mark Weida, Ph.D., *Professor of Statistics*

Frederick Morris Feiker, B.S. in E.E., D.Eng., *Professor of Engineering Administration*

Merle Irving Protzman, Ph.D., *Professor of Romance Languages*

Benjamin Carpenter Cruickshanks, B.S. in M.E., *Professor of Mechanical Engineering*

Charles Rudolph Naeser, Ph.D., *Professor of Chemistry*

Carl Hugo Walther, B.E., M.C.E., *Professor of Civil Engineering*

Bruce Douglas Greenshields, C.E., Ph.D., *Professor of Civil Engineering*

Forest Klaire Harris, Ph.D., *Professorial Lecturer in Electrical Engineering*

Waldo Edward Smith, B.E., M.S. in C.E., *Professorial Lecturer in Civil Engineering*

Robert Gay Trumbull, B.S. in C.E., *Associate Professor of Mechanical Engineering*

Wolfram Karl Legner, Ph.D., *Associate Professor of German*

Raymond Pugh Eyman, C.E., *Associate Professor of Civil Engineering*

William Sutton Carley, M.S. in E.E., *Associate Professor of Electrical Engineering*

Averett Howard, A.M., *Associate Professor of English Composition*

Charles Edward Greeley, B.S. in M.E., *Associate Professor of Mechanical Engineering*

---

\* The President of the University, the Dean and the Assistant Dean of the School, the Registrar of the University, the Director of Admissions of the University, Professors, Associate Professors, and Assistant Professors constitute the Faculty.

‡ On sabbatical leave winter term 1950-51.



- James Joseph Kerley, Jr., A.B. in C.E., *Assistant Professor of Civil Engineering*  
 Frederick Henry Kohloss, B.S. in M.E., LL.B., *Assistant Professor of Mechanical Engineering*  
 Haaren Albert Miklofsky, B.C.E., M.Eng., *Assistant Professor of Civil Engineering*  
 William Thomas Dickinson, M.S. in E.E., *Assistant Professor of Electrical Engineering*  
 Jerome Strauss Antel, Jr., B.S. in E.E., *Assistant Professor of Electrical Engineering*  
 Rudolph Michel, M.S. in M.E., *Lecturer in Mechanical Engineering*  
 Moses Freedman, B.S. in Eng., *Lecturer in Civil Engineering*  
 Edgar Stover Walker, B.S. in C.E., *Lecturer in Civil Engineering*  
 Edward Frederick Kelley, M.S., Ae.E., *Lecturer in Mechanical Engineering*  
 William Gammon Hayward, B.S. in C.E., *Lecturer in Civil Engineering*  
 Thomas Alvin O'Halloran, B.E.E., *Lecturer in Electrical Engineering*  
 Dwight Edward Shytte, *Lecturer in Electrical Engineering*  
 Bernard Bernstein, B.S., B.M.E., *Lecturer in Mechanical Engineering*  
 Alvin Raymond Schwab, B.S., M.S. in Eng., *Lecturer in Civil Engineering*  
 Malcolm Richardson Moore, B.E.E., *Lecturer in Electrical Engineering*  
 Richard Lee Fenton, B.M.E., *Lecturer in Mechanical Engineering*  
 Asriel Taragin, B.E., *Lecturer in Civil Engineering*  
 Ralph Brady, B.S. in E.E., *Lecturer in Electrical Engineering*  
 Frank Spaulding Borden, B.C.E., *Lecturer in Civil Engineering*  
 William Clayton Justice, B.S. in Eng., *Lecturer in Mechanical Engineering*  
 Jerome Addison Lee, B.S., *Lecturer in Electrical Engineering*  
 Mark Michael Kiley, A.M. in Eng., *Instructor in Civil Engineering*

## THE DEAN'S COUNCIL \*

1951

Norman Bruce Ames  
 Bruce Douglas Greenshields

1952

James Henry Taylor  
 Charles Rudolph Naeser

1953

Benjamin Carpenter Cruickshanks  
 Raymond Pugh Eyman

\* Elected by the Faculty. The President of the University and the Dean and the Assistant Dean of the School of Engineering are members ex officio of the council.



## GENERAL INFORMATION

## INTRODUCTORY

The School of Engineering was organized in 1884 as the Corcoran Scientific School. In 1903 that school was combined with Columbian College in the Department of Arts and Sciences. In 1905 the engineering courses were placed under an administrative organization known as the Washington College of Engineering and in 1909 the name was changed to the College of Engineering and Mechanic Arts. In 1914 the name became the School of Engineering.

Courses leading to the degrees of Bachelor of Civil Engineering, Bachelor of Mechanical Engineering, and Bachelor of Electrical Engineering are accredited by the Engineers' Council for Professional Development, the recognized accrediting body of the engineering profession, composed of representatives of the American Society of Civil Engineers, the American Institute of Mining and Metallurgical Engineers, the American Society of Mechanical Engineers, the American Institute of Electrical Engineers, American Society for Engineering Education, the American Institute of Chemical Engineers, and the National Council of State Boards of Engineering Examiners.

## REGULATIONS

*Students in the School of Engineering are subject to, and are expected to familiarize themselves with, the regulations concerning ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 11-23, and the University regulations stated on pages 36-42.*

## AMOUNT OF WORK

Eighteen credit hours, including required physical education, constitute normal full-time work. Nine credit hours constitute normal part-time work.

A full-time student who is not on probation may take ordinarily not more than nineteen credit hours. A student employed more than twenty-four hours a week, who is not on probation, may take ordinarily not more than ten credit hours. A student whose quality-point index is 3.00 or higher may be permitted by the Dean to exceed these limits by not more than two credit hours.

A student previously unemployed who accepts employment subsequent to registration or at any time during a term is required to report that fact immediately to the Dean, in order that adjustments in schedule may be made, if necessary, to bring his program within the Faculty's limitations upon the amount of work to be carried by an employed student.



#### ATTENDANCE

The student is expected to attend every meeting of the course in which he is registered fully prepared to carry on the work required. The student is held responsible for all work in the course, and all absences must be excused before provision will be made for him to make up the work missed. Excuses for absences from examinations which have been announced in advance can be obtained only by making written application to the instructor in charge of the course.

#### THE BACHELOR'S DEGREES

The Bachelor's degrees are: Bachelor of Civil Engineering, Bachelor of Electrical Engineering, Bachelor of Mechanical Engineering, and Bachelor of Science in Engineering.

The degree of Bachelor of Science in Engineering may be earned with any of the following options: Business Administration, Chemistry, Economics, Mathematics, Physics, or Statistics.

#### REQUIREMENTS FOR THE DEGREES

##### SCHOLARSHIP

The system of grading and computing scholarship is described in detail on pages 36 and 37.

In order to graduate, a student must have a quality-point index of at least 2.00.

*Probation.*—A student must maintain a quality-point index of at least 2.00, or be placed on probation. A student remains on probation as long as his quality-point index is below 2.00, or until his probation is removed by the Dean's Council.

*Suspension.*—A student who has a quality-point index below 1.00 will be suspended. A student who becomes subject to probation for the third time, whether successive or after an interval, will be suspended.

A student suspended for poor scholarship may apply for readmission after an interval of one calendar year. He must then submit evidence to the Dean's Council that during his absence from the University he has so conducted himself as to indicate that he will profit by readmission. A student suspended twice for poor scholarship will not be readmitted.

---

The foregoing scholarship regulations are applied when a student has completed a minimum of twelve credit hours of work. Thereafter, the regulations are applied in multiples of twelve credit hours.



## USE OF CORRECT ENGLISH

Any student whose English in any course whatever is deemed unsatisfactory may be reported by the instructor to the Dean's Council. The Council may assign supplementary work, without academic credit, varying in amount with the needs of the student. If the work prescribed is equivalent to a course, the regular tuition fee is charged. The granting of a degree may be delayed for failure to make up any such deficiency in English to the satisfaction of the Dean's Council.

The foregoing regulation is to be interpreted as applying to both written and spoken English.

## RESIDENCE

One year, or thirty-six credit hours, must be completed in residence in the School of Engineering. Summer term work may be counted in residence, but in no case may the period of residence aggregate less than thirty weeks. Unless special permission is granted by the Dean to pursue work elsewhere, the work of the senior or final year must be completed in residence.

## CURRICULUM REQUIREMENTS

The satisfactory completion of one of the following curricula of 140 credit hours, exclusive of physical education, is required.

Physical Education is required of all students in the freshman and sophomore years. (See, "Physical Education Requirements", page 39.)

Variations from the prescribed curricula may be made, with the permission of the Dean's Council. A student desiring to omit a required course and substitute another must make written application to the Dean, presenting satisfactory reasons for the substitution; and written approval must be obtained before registration for the course.

FRESHMAN YEAR (FOR ALL ENGINEERING CURRICULA)		Hours Credit
Chem 11-12	General Chemistry .....	8
CE 2	Plane Surveying .....	3
Engl. 1-2	Freshman English .....	6
Math. 12	Plane Analytic Geometry .....	3
Math. 19	Differential Calculus .....	3
ME 1	Engineering Survey and Orientation .....	1
ME 3	Mechanical Drawing .....	2
ME 4	Descriptive Geometry .....	2
Phys. Ed.	See page 39 for statement of requirement.	
*Phys. 6 and 7	General Physics .....	6
Total.....		34

\* The student who begins Physics with Physics 6 or 7 is subject to a qualifying examination. Credit will be given for Physics 5 if not used for entrance requirements.



## Bachelor of Civil Engineering

## SOPHOMORE YEAR

		Credit Hours
CE 21	Analytical Mechanics: Statics .....	2
CE 22	Analytical Mechanics: Dynamics .....	3
CE 23	Higher Surveying .....	4
EE 9-10	Elements of Electrical Engineering .....	6
Geol. 21-22	Physical and Historical Geology .....	6
Math. 20	Integral Calculus .....	3
Phys. Ed.	See page 39 for statement of requirement.	
Phys. 8	General Physics .....	3
Elective	Economics 1-2 or modern language .....	6
Elective	.....	3
Total.....		36

## JUNIOR YEAR

		Credit Hours
CE 25-26	Engineering Materials .....	4
CE 123	Strength of Materials .....	3
CE 136	Hydraulics .....	3
CE 140	Materials and Hydraulics Laboratory.....	2
CE 141	Graphic Statics .....	3
CE 142	Bridge Stresses .....	3
CE 164	Highway Engineering .....	3
CE 171	Route Surveying .....	3
CE 187-88	Engineering Contracts and Specifications.....	4
ME 111-12	Thermodynamics .....	6
Speech 21	Public Speaking .....	3
Total.....		37

## SENIOR YEAR

		Credit Hours
CE 147-48	Structural Design .....	4
CE 149-50	Concrete and Masonry Construction .....	6
CE 151-52	Statically Indeterminate Structures .....	4
CE 181-82	Water Supply and Sewerage .....	6
CE 189-90	Civil Engineering Proseminar .....	2
ME 141-42	Management Problems .....	4
Elective	.....	7
Total.....		33



## Bachelor of Electrical Engineering

SOPHOMORE YEAR		Credit Hours
CE 21	Analytical Mechanics: Statics .....	2
CE 22	Analytical Mechanics: Dynamics .....	3
EE 9-10	Elements of Electrical Engineering .....	6
Math. 20	Integral Calculus .....	3
Math. 132	Differential Equations .....	3
ME 13-14	Mechanism .....	4
Phys. Ed.	See page 39 for statement of requirement.	
Phys. 8	General Physics .....	3
Phys. 55	Physical Measurements .....	2
Speech 21	Public Speaking .....	3
Elective	Economics 1-2 or modern language .....	6
Total.....		35
JUNIOR YEAR		Credit Hours
I. Communications Option		
CE 123	Strength of Materials .....	3
EE 105-6	Direct-Current Laboratory .....	4
EE 107	Alternating-Current Circuits .....	3
EE 108	Alternating-Current Machinery .....	3
EE 111-12	Electrical Measurements .....	4
EE 118	Advanced Network Theory I.....	3
EE 120	Advanced Network Laboratory I.....	2
ME 111-12	Thermodynamics .....	6
Phys. 132	Electronics .....	3
Elective	.....	4
Total.....		35
SENIOR YEAR		Credit Hours
CE 25-26	Engineering Materials .....	4
CE 136	Hydraulics .....	3
EE 109	Alternating-Current Machinery .....	3
EE 119	Advanced Network Theory II.....	3
EE 121	Advanced Network Laboratory II.....	2
EE 133-34	Alternating-Current Laboratory .....	4
EE 142	Radio Wave Propagation .....	3
EE 148	Applications of Electronic Devices .....	3
EE 150	Electronic Devices Laboratory .....	2
EE 189-90	Proseminar in Electrical Engineering .....	2
Phys. 133	Electronics .....	3
Elective	.....	4
Total.....		36



JUNIOR YEAR		Credit Hours
2. Power Option		
CE 123	Strength of Materials .....	3
CE 136	Hydraulics .....	3
EE 105-6	Direct-Current Laboratory .....	4
EE 107	Alternating-Current Circuits .....	3
EE 108	Alternating-Current Machinery .....	3
EE 111-12	Electrical Measurements .....	4
EE 137	Electric Traction .....	2
ME 111-12	Thermodynamics .....	6
Phys. 132	Electronics .....	3
Elective	.....	4
Total.....		35

SENIOR YEAR		Credit Hours
CE 25-26	Engineering Materials .....	4
EE 109	Alternating-Current Machinery .....	3
EE 125-26	Principles of Electric Power Transmission.....	4
EE 133-34	Alternating-Current Laboratory .....	4
EE 138	Industrial Electrical Power Applications .....	2
EE 139	Illumination Engineering .....	2
EE 140	Electrical Design .....	3
EE 189-90	Proseminar in Electrical Engineering .....	2
ME 115	Mechanical Laboratory .....	2
Elective	Business Administration or Economics .....	6
Elective	.....	4
Total.....		36

### Bachelor of Mechanical Engineering

SOPHOMORE YEAR		Credit Hours
CE 21	Analytical Mechanics: Statics .....	2
CE 22	Analytical Mechanics: Dynamics .....	3
EE 9-10	Elements of Electrical Engineering .....	6
Math. 20	Integral Calculus .....	3
ME 7	Machine Drawing .....	2
ME 8	Mechanism Drawing .....	2
ME 13-14	Mechanism .....	4
Phys. Ed.	See page 39 for statement of requirement.	
Phys. 8	General Physics .....	3
Phys. 55	Physical Measurements .....	2
Elective	Economics 1-2 or modern language .....	6
Elective	Mathematics .....	3
Total.....		36



## JUNIOR YEAR

		Credit Hours
CE 25-26	Engineering Materials .....	4
CE 123	Strength of Materials .....	3
CE 136	Hydraulics .....	3
CE 140	Materials and Hydraulics Laboratory .....	2
CE 141	Graphic Statics .....	3
EE 13-14	Electrical Laboratory .....	4
ME 111-12	Thermodynamics .....	6
ME 141-42	Management Problems .....	4
Speech 21	Public Speaking .....	3
Elective	.....	3
Total.....		35

## SENIOR YEAR

		Credit Hours
ME 115-16	Mechanical Laboratory .....	4
ME 126	Methods of Manufacture .....	2
ME 127-28	Machine Design .....	4
ME 129-30	Power Plants .....	6
ME 131-32	Heating, Ventilating, Air Conditioning, and Refrigeration .....	4
ME 133	Combustion Engines .....	2
ME 139	Fluid Dynamics .....	3
ME 140	Dynamics of Machinery.....	3
ME 189-90	Proseminar in Mechanical Engineering.....	2
Elective	.....	5
Total.....		35

## Bachelor of Science in Engineering

## SOPHOMORE YEAR

		Credit Hours
CE 21	Analytical Mechanics: Statics .....	2
CE 22	Analytical Mechanics: Dynamics .....	3
EE 9-10	Elements of Electrical Engineering .....	6
Math. 20	Integral Calculus .....	3
ME 13-14	Mechanism .....	4
Phys. Ed.	See page 39 for statement of requirement.	
Phys. 8	General Physics .....	3
Elective	Business Administration or Speech .....	3
Elective	Economics 1-2 or modern language .....	6
Elective	Mathematics .....	3
Elective	Physics .....	3
Total.....		36



## JUNIOR YEAR

Credit  
Hours

CE 25-26	Engineering Materials .....	4
CE 123	Strength of Materials .....	3
CE 136	Hydraulics .....	3
CE 140	Materials and Hydraulics Laboratory.....	2
EE 13-14	Electrical Laboratory .....	4
ME 111-12	Thermodynamics .....	6
Elective	.....	13
Total.....		35

## SENIOR YEAR

Credit  
Hours

Bus. Adm. 101	Business Organization and Combination.....	3
Bus. Adm. 102	Business Management .....	3
Geol. 21-22	Physical and Historical Geology.....	6
ME 141-42	Management Problems .....	4
Elective	.....	19
Total.....		35

The purpose of the Bachelor of Science in Engineering curriculum is to allow a student who has demonstrated his ability to do better than passing work to center his attention upon a group of subjects in which he has special interest. Options may be elected in Business Administration, Chemistry, Economics, Mathematics, Physics, or Statistics. The student's choice of courses in his option must be submitted to the Dean's Council for approval *before* the beginning of the junior year. The student must comply with such requirements as to subjects, schedules, and scholarship as the department concerned may prescribe.

Curricula recommended by the several departments in which options may be elected are available in the Office of the Dean of the School of Engineering for the guidance of students in arranging their programs. Variations from these curricula may be made to satisfy the needs of the exceptional individual student. However, any variation must be approved in writing by the department directing the option and by the Dean's Council.

## THE PROFESSIONAL DEGREES

The professional degree of Civil Engineer, Electrical Engineer, or Mechanical Engineer may be conferred upon a graduate of the School of Engineering who has demonstrated his professional ability.



## REQUIREMENTS FOR THE DEGREES

1. Application may not be made sooner than three years after graduation, and then only if the candidate has had responsible charge of engineering work.

2. A detailed statement of the candidate's experience, references, the degree sought, and the title of the dissertation must be filed with the Dean eight months before the Commencement at which the degree is to be conferred.

Detailed information concerning the preparation of the dissertation may be obtained from the Office of the Dean.



## THE SCHOOL OF PHARMACY

### THE FACULTY AND STAFF OF INSTRUCTION \*

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Charles Watson Bliven, M.S., *Dean of the School of Pharmacy*

Ralph Dale Kennedy, Ph.D., *Professor of Accounting*  
Ira Bowers Hansen, Ph.D., *Professor of Zoology*  
Lawson Edwin Yocum, Ph.D., *Professor of Botany*  
Charles Watson Bliven, M.S., *Professor of Pharmacy*  
Alan Thomas Deibert, A.M., *Professor of Romance Languages*  
Chester Elwood Leese, Ph.D., *Professor of Physiology*  
Calvin Darlington Linton, Ph.D., *Professor of English Literature*  
Angus MacIvor Griffin, Ph.D., *Professor of Bacteriology*  
William Paul Briggs, M.S., Sc.D., *Professorial Lecturer in Pharmacy*  
Carleton Raymond Treadwell, Ph.D., *Associate Professor of Biochemistry*  
George Martin Koehl, A.M., *Associate Professor of Physics*  
Robert Corbin Vincent, Ph.D., *Associate Professor of Chemistry*  
Jane Gass, M.S., *Assistant Professor of Pharmacology and Pharmacognosy*  
Salvatore Joseph Greco, Ph.D., *Assistant Professor of Pharmacy*  
John Watson Schermerhorn, Ph.D., *Assistant Professor of Pharmaceutical Chemistry*  
Harold Jerome Bobys, A.B., C.P.A., *Lecturer on Pharmaceutical Administration*  
Carson Gray Frailey, A.B., LL.B., *Lecturer on Pharmaceutical Law*  
David Lucian Rice, B.S. in Phar., *Instructor in Hospital Pharmacy*  
Carmel Miriam Snow, B.S. in Phar., *Instructor in Hospital Pharmacy*

### SEMINAR LECTURERS

James Johnson Durrett, M.S., Phar.G., M.D., *Professorial Lecturer on Drug Control Problems*  
Carson Peter Frailey, Phar.D., Sc.D., *Professorial Lecturer on Industrial Pharmacy*  
Frederick John Cullen, Phar.G., M.D., *Professorial Lecturer on Drug Manufacture*  
James Albert Horton, LL.B., *Professorial Lecturer on Drug Trade Regulations*

\* The President of the University, the Dean of the School, the Registrar of the University, the Director of Admissions of the University, Professors, Adjunct Professors, Associate Professors, Assistant Professors, and Instructors constitute the Faculty.



- John Christian Krantz, Jr., Ph.D., *Professorial Lecturer on Pharmaceutical Research*  
 Justin Lawrence Powers, Ph.D., *Professorial Lecturer on Official Drug Standards*  
 Robert Lee Swain, Phar.D., LL.B., *Professorial Lecturer on Contemporary Pharmacy*  
 George Potter Larrick, *Professorial Lecturer on Drug Control*  
 Robert Philip Fischelis, B.S., Phar.D., Sc.D., *Professorial Lecturer on Pharmaceutical Organizations*

## COMMITTEES \*

## ADVISORY COMMITTEE

- Irving Alexander Tennyson, *Chairman*  
 Howard Bradbury  
 William Paul Briggs  
 Fred Royce Franzoni  
 Augustus Carrier Taylor

## THE DEAN'S COUNCIL ‡

- Ira Bowers Hansen  
 Robert Corbin Vincent  
 John Watson Schermerhorn  
 Salvatore Joseph Greco  
 Jane Gass

## COMMITTEE ON SCHOLARSHIP

- Lawson Edwin Yocum, *Chairman*  
 John Watson Schermerhorn  
 Robert Corbin Vincent

## GENERAL INFORMATION

## INTRODUCTORY

In 1867 the foundation for the National College of Pharmacy was laid by the Apothecaries' Association of the District of Columbia. The College was opened in 1872 and continued until 1906, when it became affiliated with The George Washington University.

The School of Pharmacy is accredited by the American Council on Pharmaceutical Education.

The School of Pharmacy is a member of the American Association of Colleges of Pharmacy.

Washington offers many opportunities for the study of pharmacy. Not only are the facilities of government laboratories and libraries open to

\* The President of the University and the Dean of the School of Pharmacy are members ex officio of all committees.

‡ Elected by the Faculty.



the student, but the School of Pharmacy is located only a few blocks from the American Institute of Pharmacy building, in which has been established a pharmaceutical museum and library, and research laboratories which have brought to Washington the outstanding men of the profession.

#### REGULATIONS

*Students in the School of Pharmacy are subject to and are expected to familiarize themselves with the regulations concerning ADMISSION, REGISTRATION, FEES AND FINANCES as stated on pages 11-23, and the University regulations stated on pages 36-42.*

#### AMOUNT OF WORK

Normal work for any year is that outlined under the head of "Curriculum Requirements", below. A student who wishes to take more than the normal amount of work may do so only with the permission of the Committee on Scholarship, the members of which are guided in their decision by his scholastic record and the extent to which he is employed. A student on probation is limited in the amount of work he may carry.

#### ATTENDANCE

Except by special permission of the instructor, credit will not be given for any pharmacy course if absences, including both lecture and laboratory, exceed in number for each term the hours of credit for the term.

Absence consists of being away from a lecture or a laboratory, entering after the lecture or laboratory has begun, or leaving before either is dismissed.

#### EXAMINATIONS BEFORE STATE BOARDS OF PHARMACY

To be eligible for examination before most state boards of pharmacy the applicant is required to present satisfactory evidence of college graduation and in addition must have had from one to four years of practical experience in a pharmacy where prescriptions are compounded. The student is not encouraged to undertake professional work while attempting a full course of study. A student who maintains a quality-point index of 2.00 or higher, may be granted permission by the Dean to acquire a limited amount of this professional experience by working in a pharmacy while carrying a full schedule. A student who falls below a quality-point index of 2.00 will be required to reduce his academic load, or to limit his professional-experience time to less than twenty-four hours a week.

#### THE DEGREE OF BACHELOR OF SCIENCE IN PHARMACY

Upon the satisfactory completion of the requirements of the School of Pharmacy, the degree of Bachelor of Science in Pharmacy is conferred.



## REQUIREMENTS FOR THE DEGREE

## SCHOLARSHIP

The system of grading and of computing scholarship is described in detail on pages 36 and 37.

In order to graduate, a student must have a general quality-point index of at least 2.00. In addition, he must have a quality-point index of at least 2.50 in all pharmacy courses.

*Probation.*—A student must maintain a general quality-point index of at least 2.00, or be placed on probation.

A student remains on probation as long as his general quality-point index is below 2.00; however, a student who has an index of between 1.50 and 2.00 will be considered by the Committee on Scholarship, which may retain him on probation or suspend him.

*Suspension.*—A student who has a general quality-point index below 1.50 will be suspended; however, a student who has an index between 1.40 and 1.50 will be considered by the Committee on Scholarship, which may retain him on probation or suspend him.

A student who is subject to probation for the third time, whether successive or after an interval, will be suspended.

A student suspended for poor scholarship may apply for readmission after an interval of a calendar year. He must then submit evidence to the Dean of the School of Pharmacy that during his absence from the University he has so conducted himself as to indicate that he will profit by readmission. A student suspended twice for poor scholarship will not be readmitted.

---

The foregoing scholarship rules are applied when a student has undertaken a multiple of nine credit hours.

## CURRICULUM

The laboratory method of teaching is used. Recitation classes are held in connection with each course in order to provide systematic drill in the subjects.

The curriculum requirements include at least 138 credit hours. At least two credit hours of the elective courses must consist of laboratory work. The following curriculum leads to the degree of Bachelor of Science in Pharmacy.



## Freshman and Sophomore Years

Courses	Did. hrs.	Lab. hrs.	Credit hrs.	Clock hrs.
Courses in the Junior College (see page 57).....	832	752	68	1584

## Junior Year: Fall Term

Courses	Did. hrs.	Lab. hrs.	Credit hrs.	Clock hrs.
Chemistry 151.....	48	48	4	96
Pharmacy 105.....	32	....	2	32
Pharmacy 107.....	48	....	3	48
Physiology 115.....	48	....	3	48
Physiology 117.....	....	48	1	48
Elective .....	80	....	5	80
Total.....	256	96	18	352

## Junior Year: Winter Term

Bacteriology 112.....	48	96	4	144
Chemistry 152.....	32	96	4	128
Pharmacy 102.....	32	96	4	128
Pharmacy 106.....	32	....	2	32
Pharmacy 110.....	48	....	3	48
Total.....	192	288	17	480

## Senior Year: Fall Term

*Biochemistry 221.....	32	96	4	128
Pharmacy 103.....	32	96	4	128
Pharmacy 111.....	32	48	3	80
Pharmacy 165.....	48	....	3	48
Elective .....	16	96	3	112
Total.....	160	336	17	496

\* With permission of the Dean, Biochemistry 221-22 may be replaced by other courses, for purposes of specialization.



## Senior Year: Winter Term

Bacteriology 210.....	32	....	2	32
*Biochemistry 222.....	32	96	4	128
Pharmacy 166.....	32	64	3	96
Pharmacy 176.....	32	....	2	32
Pharmacy 178.....	48	....	3	48
Pharmacy 188.....	32	....	....	32
Pharmacy 192.....	16	48	2	64
Elective.....	32	....	2	32
Total.....	256	208	18	464
Grand total.....	1696	1680	138	3376

## THE DEGREE OF MASTER OF SCIENCE IN PHARMACY

Upon the satisfactory completion of the graduate requirements of the School of Pharmacy, the degree of Master of Science in Pharmacy is conferred.

## DEFINITION OF THE MASTER'S WORK

The study leading to the degree of Master of Science in Pharmacy is a comprehensive survey of one or more of the fields of knowledge embraced by Pharmacy. It is a continuation of the work of the student's undergraduate major and involves a greater acquaintance with scholarly method.

The student must satisfy certain minimum requirements as to previous preparation, residence, ability to read an approved modern foreign (European) language, and courses taken; but these requirements, while essential, are regarded primarily as qualifying measures. The student's knowledge of his field, as demonstrated by his thesis and by the results of his Master's examination (together with such other examinations involving special skills or techniques as may be required), is the basis upon which the Master's degree is conferred. The foreign language requirement may be waived by faculty action in the instance of students whose field of study at the Master's level may not require such preparation.

## REQUIREMENTS FOR THE DEGREE

## RESIDENCE

An academic year of residence is required, i.e., completion of a minimum of thirty credit hours of work including the thesis, which is

\* With permission of the Dean, Biochemistry 221-22 may be replaced by other courses, for purposes of specialization.



counted as the equivalent of six credit hours of course work. Summer term work may be counted in residence, but in no case may the period of residence aggregate less than twenty-seven weeks. Not more than twelve credit hours (which must be approved in advance by the Dean of the School of Pharmacy) may be taken in another school or division of this University, and such work may not be counted toward both a degree in that school or division and the Master's degree in the School of Pharmacy.

#### AMOUNT OF WORK

A student whose previous preparation in his chosen field has been adequate may complete his requirements, including the thesis, by a minimum of thirty credit hours; others are required to do additional work. First-group courses may not be credited toward the Master's degree. Pharmacy courses numbered below 200 may be credited toward the Master's degree only when registration for graduate credit has been approved at the beginning of the course by the instructor and the Dean of the School of Pharmacy.

#### ADMISSION TO CANDIDACY

In addition to admission requirements stated on page 17, the applicant for admission to candidacy for the Master's degree must be approved by the appropriate representative of the department of Pharmacy and by the Dean.

#### SCHOLARSHIP

A student whose scholarship is considered unsatisfactory may be suspended by the Dean upon recommendation of the staff member under whom the student is working.

#### THE MASTER'S THESIS

The thesis may be of a research, expository, critical, or creative type.

The main purpose of a Master's thesis is to demonstrate the student's ability to make independent use of the information and training acquired through his other disciplines, and to furnish objective evidence of his constructive powers in his chosen field. Registration for the thesis must be no later than the beginning of the final year of preparation, unless the professor in charge of the thesis permits registration at the beginning of the final term. The choice of the thesis subject must be approved by the professor in charge of the student's field and recorded in the Office of the Registrar by the date announced in the University calendar. Registration for the thesis is ordinarily made on the basis of three credit hours for two successive terms. In exceptional cases, and with the approval of the professor in charge of the thesis, the student may register for the entire six credit hours during a single term. The type-



written thesis in its final form must have the approval of the professor in charge of the student's field and must be presented to the Dean by the student not later than the date announced in the University calendar. Requirements regarding the form of the thesis are stated on page 40, and additional information will be supplied by the Dean.

Payment of tuition for the thesis entitles the candidate, during the academic year of registration, to the advice and direction of the member of the faculty under whom the thesis is to be written. In case a thesis is unfinished, an additional successive academic year may be granted without further tuition payment. If the preparation of the thesis extends beyond the two-year period the student must register for it again, and pay tuition on the same basis as for a repeated course.

#### FINAL EXAMINATION

In addition to the course examinations, the candidate must pass a final examination on the thesis and its related fields. This examination may be either written or oral at the discretion of the faculty.

If the thesis is submitted more than three years after the course requirements have been completed, a written examination covering the student's complete program of study will also be required.



## THE SCHOOL OF EDUCATION

### THE FACULTY AND STAFF OF INSTRUCTION •

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*

James Harold Fox, A.M., Ed.D., *Dean of the School of Education*

Henry Grattan Doyle, A.M., LL.D., Litt.D., *Professor of Romance Languages*

Ruth Harriet Atwell, A.M., *Professor of Physical Education for Women*

‡Frank Mark Weida, Ph.D., *Professor of Statistics*

Mitchell Dreese, Ph.D., *Professor of Educational Psychology*

James Harold Fox, A.M., Ed.D., *Professor of Education*

Thelma Hunt, Ph.D., M.D., *Professor of Psychology*

Frances Kirkpatrick, A.M., *Professor of Home Economics*

William Henry Myers, A.M., *Professor of Physical Education for Men*

Burnice Herman Jarman, A.M., Ed.D., *Professor of Education*

Chester Elwood Leese, Ph.D., *Professor of Physiology*

William Cullen French, Ph.D., *Professor Emeritus of Education in Residence*

Meredith Chester Wilson, B.S., *Adjunct Professor of Education*

Ruth Coyner Little, Ph.D., *Professorial Lecturer in Education*

§Ray LaForest Hamon, Ph.D., *Professorial Lecturer in Education*

Charles Edward Bish, A.M., Ed.D., *Professorial Lecturer in Education*

Cecil Wentworth Morgan, Ph.D., *Professorial Lecturer in Physical Education*

Henry Fred Alves, A.M., *Professorial Lecturer in Education*

§Bernath Eugene Phillips, Ph.D., *Professorial Lecturer in Physical Education*

Helen Bennett Lawrence, A.M., *Associate Professor of Physical Education for Women*

Kathryn Mildred Towne, A.M., *Associate Professor of Home Economics*

Joseph Henry Krupa, M.S., *Associate Professor of Physical Education for Men*

Elizabeth Burtner, A.M., *Associate Professor of Physical Education for Women*

Blake Smith Root, A.M., Ed.D., *Associate Professor of Education*

Ralph Windsor Ruffner, A.M., Ed.D., *Associate Professor of Education*

Dorothy Helene Veon, Ed.D., *Assistant Professor of Secretarial Studies*

• The President of the University, the Dean of the School, the Registrar of the University, the Director of Admissions of the University, Professors, Adjunct Professors, Associate Professors, Assistant Professors, and Instructors constitute the Faculty.

‡ On sabbatical leave winter term 1950-51.

§ On leave of absence 1950-51.



Raymond George Hanken, B.S. in P.E., *Assistant Professor of Physical Education for Men*

Marjorie Tate, A.M., *Assistant Professor of Physical Education for Women*

Vincent James DeAngelis, B.S. in P.E., A.M. in Ed., *Assistant Professor of Physical Education for Men*

Jane Frost Hilder, A.M., *Lecturer in Education, Director of Reading Clinic*

\*Madaline Kinter Remmlein, Ph.D., J.D., *Lecturer in Education*

LuVerne Crabtree Walker, A.M., *Lecturer in Education*

Helen Barton Goodwin, A.M., *Lecturer in Education*

Ralph Waldo Foster, A.M., *Lecturer in Physical Education*

Camilla Painter Luecke, A.M., *Lecturer in Education*

Florence Mary Lumsden, A.M., Ed.D., *Lecturer in Education*

William Samuel Rumbough, A.M., Ed.D., *Lecturer in Education*

Cannon Chiles Hearne, A.M., *Lecturer in Education*

Marie Marguerite Neeb, A.M., *Clinician, Reading Clinic*

Wesley Earl Armstrong, M.S., Ed.D., *Consultant in Research*

John Robert Ludington, Ph.D., *Consultant in Research*

#### COMMITTEES ‡

##### THE DEAN'S COUNCIL §

1951

Thelma Hunt

Francis Kirkpatrick

1952

Frank Mark Weida

Elizabeth Burtner

1953

Joseph Henry Krupa

Blake Smith Root

##### COMMITTEE ON ADMISSION AND ADVANCED STANDING

The Dean of the School, *Chairman*

Harold Griffith Sutton

Frances Kirkpatrick

William Henry Myers

Frank Mark Weida

Burnice Herman Jarman

Ruth Harriet Atwell

\* On leave of absence 1950-51.

‡ The President of the University and the Dean of the School of Education are members ex officio of all committees.

§ Elected by the Faculty.



COMMITTEE ON SCHOLARSHIP

Blake Smith Root, *Chairman*

William Henry Myers

Helen Bennett Lawrence

Kathryn Mildred Towne

GENERAL INFORMATION

INTRODUCTORY

It is the purpose of the School of Education to prepare teachers, supervisors, and administrators for the higher ranges of educational service and to offer opportunities to teachers of experience to extend their education. The School includes the departments of Education, Physical Education, and Home Economics. It offers both graduate and undergraduate work. Other departments of the University provide general education and subject-matter courses needed for a well-balanced program of teacher education.

The schedule of courses is arranged to meet the convenience of both full-time and part-time students. By attending evening, Saturday, and summer classes, teachers in the schools of Washington and vicinity may complete all the requirements for a degree without giving up their positions.

To help children and adults with reading difficulties, the School of Education operates a reading clinic for diagnosis and treatment.

REGULATIONS

*Students in the School of Education are subject to, and are expected to familiarize themselves with, the regulations concerning ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 11-23, and the University regulations stated on pages 36-42.*

AMOUNT OF WORK

A normal program of work for an undergraduate student is fifteen credit hours. A student with a quality-point index of 3.00 or higher may, with the Dean's permission, take eighteen hours. More than eighteen hours may not be taken except by special permission of the Committee on Scholarship.

For an employed student nine credit hours constitute a normal program. A student with a quality-point index of 3.00 or higher for the preceding term may be permitted by the Dean to take twelve or thirteen credit hours.

For a graduate student twelve credit hours, exclusive of the thesis,



constitute a normal program. An employed student may not take more than nine credit hours.

### THE BACHELOR'S DEGREES

Upon the satisfactory completion of the undergraduate requirements of the School of Education, the degree of Bachelor of Arts in Education, Bachelor of Science in Home Economics, or Bachelor of Science in Physical Education is conferred.

The program of work of each student must be approved by a Faculty adviser. Since each student's program of work will be defined by his particular needs, it is important that the student have a clear conception of his major interest in education, and also that he be familiar with the teaching-certificate requirements in the locality in which he expects to teach.

### REQUIREMENTS FOR THE DEGREES

To be recommended for a degree a student must satisfy the admission, residence, scholarship, and curriculum requirements.

#### RESIDENCE

For full details concerning continuous registration, see page 40.

#### SCHOLARSHIP

The system of grading and of computing scholarship is described in detail on pages 36 and 37.

In order to graduate, a student must have a quality-point index of at least 2.00.

*Probation.*—An undergraduate student who fails to maintain a quality-point index of at least 2.00 will be placed on probation. A student remains on probation as long as his quality-point index is below 2.00, or until his probation is removed by the Committee on Scholarship.

*Suspension.*—An undergraduate student who fails to pass in half or more than half of his work, based on a minimum of sixteen credit hours, will be suspended.

A student who has been suspended for poor scholarship may within ten days appeal his case to the Committee on Scholarship through the Dean. If the case appears to be remediable and the student appears likely to improve in his scholarship thereafter, the Committee may readmit him on probation. A student who has been denied readmission on probation may petition the Committee on Scholarship through the Dean for readmission after the lapse of a calendar year. A student who has been suspended twice will not be readmitted.



## CURRICULUM REQUIREMENTS

In any of the following curricula at least thirty credit hours must consist of courses numbered above 100.

## Bachelor of Arts in Education

Programs leading to the degree of Bachelor of Arts in Education have three main objectives: (1) provision of general educational backgrounds, (2) a functional command of ideas, concepts, knowledges, and skills in one or more teaching fields, and (3) a mastery of basic professional information and skills adequate for a beginning teacher. Since the contents of teaching fields differ in scope and complexity, some programs are longer than others in terms of credit hours. None require less than 126 credit hours of satisfactory work, exclusive of required Physical Education. Normally, 60 credit hours of the total requirement are completed in the Junior College of the University or in an equivalent institution elsewhere. (See "Education", pages 57 and 58.)

The general educational backgrounds needed by prospective teachers are obtained through: (1) pre-college education, (2) college courses, (3) work experience, (4) leadership activities, (5) participation in student campus activities, and (6) utilization of off-campus cultural opportunities.

Teaching-field requirements include satisfactory completion of prescribed academic courses in one or more fields, a satisfactory score on the special field examination of the National Teacher Examinations, and satisfactory completion of the prescribed special methods courses. Programs of study are available in the following fields: art, biology, business education, chemistry, elementary education,\* English, French, geography, German, history, mathematics, physics, social studies, Spanish, and speech.

The basic professional information and skills needed by beginning teachers are provided through four one-year courses, two in each of the junior and senior years. Lectures and class discussions are closely coordinated with field work. Instruction is differentiated to meet the needs of those preparing to teach on the various levels—elementary school, junior high school, senior high school, and adult.

## PROFESSIONAL COURSES

	Credit Hours
Education 109-10: Learning and Teaching.....	6
Education 121-22: Society and the School.....	6
Education 131: Common Teaching Skills.....	3
Education 133-34: Observation and Practice Teaching.....	6
Education 136 to 150: Special Methods.....	2-6
Total.....	23-27

\* Only for those who have graduated from a two- or three-year course in a Normal School.



Additional information concerning these programs may be obtained by writing to the Dean of the School of Education.

### Bachelor of Science in Home Economics

The curriculum leading to this degree is designed to prepare young women for the important responsibility of home-making. The program can be adapted, however, to meet special requirements in nutrition, dietetics, clothing, and other related fields. Each student must plan her work with the assistance of a Faculty adviser in the Department of Home Economics.

#### GENERAL HOME-MAKING

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Home Economics 53.....	3		Home Economics 152.....	3	
Home Economics 72.....	3		Home Economics 171.....	3	
Home Economics 102.....	3		Home Economics 181.....	3	
Home Economics 123.....	3		Home Economics 192.....	3	
Physiology 115.....	3		Home Economics 197-98.....	6	
Electives.....	15		Psychology 29.....	3	
			Electives.....	9	
Total.....	30		Total.....	30	

### Bachelor of Science in Physical Education for Men

There are three curricula leading to this degree. The Single-Major and Subject-Certification Teacher's Course is designed to prepare students for teaching positions in smaller schools where it is necessary to teach an academic subject in addition to physical education. The Single-Major Teacher's Course prepares for the teaching of physical education in the larger schools. The Physical Education and Recreation Course has been planned for those who wish to be prepared to direct programs of recreation in addition to the teaching of physical education.

The minimum requirements for this degree are sixty-six credit hours, distributed as follows:

#### SINGLE-MAJOR AND SUBJECT-CERTIFICATION TEACHER'S COURSE

The minimum requirements for this degree are twenty-one credit hours in education, twenty-three credit hours in physical education, nineteen credit hours in an academic teaching field, and three credit hours in physiology, distributed as follows:

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Education 109-10.....	6		Education 131.....	3	
Education 121-22.....	6		Education 133-34.....	6	
Physical Education 105.....	3		Physical Education 103.....	3	
Physical Education 113-14.....	4		Physical Education 115-16.....	4	
Physical Education 122.....	3		Physical Education 131.....	3	
Physiology 115.....	3		Physical Education 138.....	3	
Academic teaching field.....	8		Academic teaching field.....	11	
Total.....	33		Total.....	33	



## SINGLE-MAJOR TEACHER'S COURSE

The minimum requirements for this degree are twenty-one credit hours in education, thirty credit hours in physical education, three credit hours in physiology, and twelve credit hours of electives:

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Education 109-10	.....	6	Education 131	.....	3
Education 121-22	.....	6	Education 133-34	.....	6
Physical Education 109-10	.....	4	Physical Education 103	.....	3
Physical Education 113-14	.....	4	Physical Education 105	.....	3
Physical Education 115-16	.....	4	Physical Education 131	.....	3
Physical Education 121	.....	3	Physical Education 138	.....	3
Physical Education 122	.....	3	Elective	.....	12
Physiology 115	.....	3			
Total	.....	33	Total	.....	33

## PHYSICAL EDUCATION AND RECREATION COURSE

The minimum requirements for this course are sixty-six credit hours, distributed as follows:

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Education 109	.....	3	Education 131	.....	3
Education 121-22	.....	6	Education 133-34	.....	6
Physical Education 48	.....	2	Physical Education 103	.....	3
Physical Education 109-10	.....	4	Physical Education 122	.....	3
Physical Education 113-14	.....	4	Physical Education 131	.....	3
Physical Education 132	.....	1	Physical Education 138	.....	3
Physical Education 151-52	.....	6	Physical Education 153-54	.....	6
Electives	.....	7	Physical Education 161	.....	3
Total	.....	33	Physical Education 162	.....	3
			Total	.....	33

## Bachelor of Science in Physical Education for Women

There are three curricula leading to this degree. The Dual-Major Teacher's Course is designed to prepare students for teaching positions in smaller schools where it is necessary to teach an academic subject in addition to physical education. The Single Major Teacher's Course prepares for the teaching of physical education in the larger schools. Within this course there is opportunity for specialization in dance, sports, or correctives. The Physical Education and Recreation Course has been planned for those who wish to be prepared to direct programs of recreation in addition to the teaching of physical education.

The minimum requirements for this degree are sixty-six credit hours, distributed as follows:

## DUAL OR SINGLE MAJOR TEACHER'S COURSE

The student desiring to prepare herself to teach another subject in addition to Physical Education for Women may do so by choosing her elective hours from one subject-matter field with the advice of the Dean



of the School of Education. Relevant work completed in the Junior College may be counted in this subject-matter field.

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Education 109-10	.....	6	Education 121-22	.....	6
Physical Education 51-52	.....	4	Education 133-34	.....	6
Physical Education 58	.....	2	Physical Education 103	.....	3
Physical Education 105-6	.....	6	Physical Education 113-14	.....	4
Physical Education 115-16	.....	4	Physical Education 131	.....	3
Physical Education 121	.....	3	Physical Education 138	.....	3
Physical Education 122	.....	3	Academic teaching field or elective	.....	9
Physical Education 132	.....	1			
Physiology 115	.....	3	Total	.....	34
Total	.....	32			

#### PHYSICAL EDUCATION AND RECREATION COURSE

JUNIOR YEAR		Credit Hours	SENIOR YEAR		Credit Hours
Education 121-22	.....	6	Education 133-34	.....	6
Physical Education 48	.....	2	Physical Education 103	.....	3
Physical Education 51-52	.....	4	Physical Education 113-14	.....	4
Physical Education 58	.....	2	Physical Education 138	.....	3
Physical Education 105-6	.....	6	Physical Education 153-54	.....	6
Physical Education 109-10	.....	4	Physical Education 161	.....	3
Physical Education 115-16	.....	4	Physical Education 162	.....	3
Physical Education 132	.....	1	Elective	.....	5
Physical Education 151-52	.....	4	Total	.....	33
Total	.....	33			

#### THE DEGREE OF MASTER OF ARTS IN EDUCATION

Upon the satisfactory completion of the graduate requirements of the School of Education, the degree of Master of Arts in Education is conferred. This is a professional degree, designed to prepare the student for some particular type of educational service. The program of studies leading to the degree is selected by the candidate and his adviser from the various related departments of the University to give the student an adequate background in his chosen vocational field. For the prospective high school or junior high school teacher this will ordinarily include study in the subject which he is planning to teach as well as in the field of education.

In accordance with the foregoing general pattern of work, graduate programs of study are available in early childhood education, elementary education in the intermediate grades, elementary school administration, guidance, agricultural education, adult education, physical education, and the various teaching fields in secondary education. Programs of work for teachers-in-service are differentiated from those for students without



teaching experience. Additional information concerning these programs may be obtained by writing to the Dean.

#### ADMISSION TO CANDIDACY

In addition to admission requirements stated on pages 17 and 18, the applicant for admission to candidacy for the Master's degree must (1) have a general undergraduate quality-point index of at least 2.50, (2) have demonstrated a genuine interest in teaching, and (3) be in possession of personality traits that give promise of better-than-average success as a teacher. Those desiring to prepare for positions in guidance or administration must have had at least two years of successful teaching experience. Candidates who have had no professional courses must satisfactorily complete the required undergraduate professional courses, including Observation and Practice Teaching, in addition to graduate course requirements.

#### ADVANCED STANDING

Graduate work completed in other accredited institutions of learning may be credited toward the Master's degree, but a minimum of thirty credit hours must be completed at The George Washington University as a matriculated candidate in the School of Education.

Advanced courses completed in excess of the requirements for the Bachelor's degree in this University may be credited toward the Master's degree to the extent of twelve credit hours, provided the work fits in with the student's plan of specialization and is approved in writing by the Dean before being undertaken.

In determining advanced standing at the time of admission or readmission to Master's candidacy at this University, graduate work completed more than three years previously is not counted.

#### REQUIREMENTS FOR THE DEGREE

##### PLANS OF STUDY

Two plans of study lead to the degree of Master of Arts. *Plan 1* requires a minimum of thirty hours of graduate credit, including a thesis carrying six hours of graduate credit. *Plan 2* requires a minimum of thirty-three hours of graduate credit, including a course in *Educational Research Methods and Procedures* carrying three hours of graduate credit.

##### SELECTION OF COURSES

Programs of study under *Plan 1* must include a minimum of twelve credit hours from third group courses in addition to the thesis. Under *Plan 2* a minimum of eighteen credit hours, in addition to the course in *Educational Research Methods and Procedures*, must be from third group courses.



Programs of study must include a minimum of twelve credit hours from courses offered in the Department of Education.

When programs of study include additional academic preparation in one or more teaching fields, undergraduate and graduate courses combined must be at least equivalent to the undergraduate requirements of the Bachelor of Arts degree in the teaching field concerned.

#### THE THESIS

The thesis required under *Plan 1* must conform to standards prescribed by the Committee on Theses. A statement of these standards may be obtained at the Office of the Dean.

The thesis subject must be approved in writing by the candidate's adviser and recorded in the Office of the Registrar by the date announced in the University calendar. One typewritten original and three legible and complete carbon copies of the thesis in its final form must be presented to the Dean by the candidate not later than the date announced in the University calendar. Requirements regarding the form of the thesis are stated on page 40, and additional information will be supplied by the Dean.

Payment of tuition for the thesis will entitle the candidate, during the academic year of registration, to the advice and direction of the member of the Faculty under whom the thesis is to be written. In case a thesis is unfinished, an additional successive academic year may be granted without further tuition payment. If the preparation of the thesis extends beyond the two-year period, it must be registered for again, and tuition paid on the same basis as for a repeated course.

#### COMPREHENSIVE EXAMINATION

In addition to the course examinations, the candidate must pass a professional comprehensive examination which shall take into account his area of specialization.

#### FIVE-YEAR PROGRAM

A candidate entering the School of Education from the Junior College (or with equivalent preparation) may choose a three-year program leading to the degrees of Bachelor of Arts and Master of Arts in Education to be conferred simultaneously. The first year of this combined program will be devoted to teaching-field preparation; the work of the second year will include the Bachelor of Arts junior-year professional courses and a maximum of eighteen credit hours of graduate courses; that of the third and final year, senior-year undergraduate professional courses and the remaining graduate courses needed for the Master's degree. Observation and Practice Teaching to be elected in the third year may not be taken for graduate credit. A quality-point index of at least 2.50 must be attained before beginning the work of the senior



year and the program must meet all the requirements of the degrees of Bachelor of Arts and the Master of Arts in Education.

### THE DEGREE OF DOCTOR OF EDUCATION

The requirements for the degree of Doctor of Education cannot be stated in credit hours, but they consist in general of at least two full years of work beyond the degree of Master of Arts in Education or the equivalent. The programs of study are designed to prepare students for administrative or supervisory positions, the teaching of education in normal schools or colleges, the teaching of an academic subject in schools or colleges, or for specialized types of educational service. The work is given a practical rather than a theoretical bent, and emphasizes the mastery and application of subject matter, both in the study requirements and in the dissertation. Special emphasis is placed upon the professional success of the candidate.

The candidate's program of study largely depends upon his previous educational background and his professional objective. Opportunities are provided for study leading to the following professional objectives: school superintendent, secondary school principal, supervisor, director of guidance, director of curriculum development, professor of education, and specialist in educational research.

### QUALIFICATIONS OF THE APPLICANT

The candidate for the degree of Doctor of Education must have completed (1) graduate work in fields prerequisite to his objective, equivalent to that required for the degree of Master of Arts in Education in The George Washington University, and (2) at least three years of successful educational experience.

### ADMISSION TO CANDIDACY

To be admitted to candidacy for the degree the applicant must be accepted by the Faculty of the School of Education on the basis of an examination conducted by a committee appointed by the Dean. This examination will usually include the following: (1) a written examination involving problems related to the applicant's background; (2) a scholastic-aptitude test; (3) an oral examination.

### CONSULTATIVE COMMITTEE

If the applicant is accepted as a candidate, his consultative committee will counsel the candidate and guide his work.

The consultative committee, in cooperation with the candidate, will (1) determine the candidate's fields of study, in each of which the candidate must pass a written examination at least eight months before he



presents himself for the degree; (2) formulate a list of course requirements and of readings that will assist him in preparing for these examinations; and (3) designate the tools of investigation that will be needed by the candidate in the prosecution of his study. These tools may include one or more foreign languages, statistical methods, historical criticism, or any others considered essential by the committee. An examination in the tools designated must be passed by the candidate before he takes his comprehensive examination.

#### THE DISSERTATION

When the candidate has satisfied the requirements of his consultative committee, the committee is dissolved. A member of the faculty, in whose field the topic of the dissertation falls, is then appointed to serve as the candidate's adviser on his dissertation and in his field of specialization, and to recommend him to the Dean for the final oral examination when, in his judgment, the candidate's dissertation is acceptable.

Not later than the date specified in the University calendar the candidate shall submit to the Dean of the School of Education four copies of his dissertation—one typewritten original and three legible and complete carbon copies, on official thesis paper—and also a typewritten summary of the dissertation consisting of not more than 2,500 words. Requirements regarding the form of the dissertation are stated on page 40, and additional information will be supplied by the Dean.

The successful candidate is required, before receiving his degree, to pay a fee to cover the expense of printing the summary of his dissertation.

#### THE FINAL EXAMINATION

At least three weeks before the degree is to be conferred the candidate must pass an oral examination on his dissertation and on his field of specialization before a committee of the Faculty appointed by the Dean, supplemented by two experts from outside the University appointed by the President. This examination is open to the public and all are privileged to question the candidate. The Dean, or a member of the Faculty designated by him, will preside at this examination.



## THE SCHOOL OF GOVERNMENT

### THE FACULTY AND STAFF OF INSTRUCTION\*

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*

Arthur Edward Burns, Ph.D., *Dean of the School of Government*

‡Richard Norman Owens, Ph.D., C.P.A., *Professor of Business Administration*

Elmer Louis Kayser, Ph.D., LL.D., *Professor of European History*

Warren Reed West, Ph.D., *Professor of Political Science*

§Frank Mark Weida, Ph.D., *Professor of Statistics*

Harold Griffith Sutton, M.S., *Professor of Finance*

Mitchell Dreese, Ph.D., *Professor of Educational Psychology*

Ralph Dale Kennedy, Ph.D., *Professor of Accounting*

Wood Gray, Ph.D., *Professor of American History*

Thelma Hunt, Ph.D., M.D., *Professor of Psychology*

Arthur Edward Burns, Ph.D., *Professor of Economics*

John Albert Tillema, Ph.D., LL.M., S.J.D., *Professor of Political Science*

John Withrow Brewer, Ph.D., *Professor of International Law*

Howard Maxwell Merriman, Ph.D., *Professor of American Diplomatic History*

§Donald Stevenson Watson, Ph.D., *Professor of Economics*

Myron Law Koenig, Ph.D., *Professor of American History*

James Christopher Corliss, A.M., *Adjunct Professor of Inter-American Economics*

‡Henry Furness Hubbard, Ph.D., *Adjunct Professor of Psychology*

William Crane Johnstone, Jr., Ph.D., *Professorial Lecturer in Political Science*

Gerhard Colm, Dr. rer. pol., *Professorial Lecturer in Economics*

Orton Wells Boyd, A.M., C.P.A., *Professorial Lecturer in Accounting*

Arlin Rex Johnson, Ph.D., *Professorial Lecturer on Marketing*

H. F. Arthur Schoenfeld, A.M., *Professorial Lecturer on European Diplomatic History*

Ralph Aubrey Young, M.B.A., Ph.D., *Professorial Lecturer in Economics*

Karl Ernest Stromsem, Ph.D., *Professorial Lecturer on Public Administration*

Edward Campion Acheson, Ph.D., *Associate Professor of Finance*

\* The President of the University, the Dean of the School, the Registrar of the University, the Director of Admissions of the University, Professors, Adjunct Professors, Associate Professors, and Assistant Professors constitute the Faculty.

‡ On leave of absence 1950-51.

§ On sabbatical leave winter term 1950-51.



- Everett Herschel Johnson, Ph.D., *Associate Professor of Statistics*  
 Robert Dale Campbell, Ph.D., *Associate Professor of Geography*  
 Wolfgang Herbert Kraus, Dr.Jur., S.J.D., *Associate Professor of Political Science*  
 Roderic Hollett Davison, Ph.D., *Associate Professor of European History*  
 Joe Lee Jessup, M.B.A., *Associate Professor of Business Administration*  
 Paul Edward Hanchett, Ph.D., *Assistant Professor of Economics*  
 Albert Raymond Miller, Jr., A.M., *Assistant Professor of Economics*  
 James Norman Mosel, A.M., *Assistant Professor of Psychology*  
 Merle Welshans, A.M., *Assistant Professor of Business Administration*  
 Solomon Kullback, Ph.D., *Lecturer in Statistics*  
 Allen Dailey Manvel, A.B., *Lecturer on Public Administration*  
 Fred Latimer Hadsel, Ph.D., *Lecturer in Political Science*  
 William George Torpey, Ph.D., *Lecturer on Public Administration*  
 Charles Bigelow Stauffacher, A.M., *Lecturer on Public Administration*  
 Charles Lawrence Marks, A.M., *Instructor in Statistics*  
 Jonathan Dayton Stoddart, A.M., *Instructor in Political Science*  
 John Leiper Freeman, A.M., *Instructor in Political Science*  
 Frederick Charles Kurtz, M.B.A., *Instructor in Accounting*  
 John William Skinner, A.M., *Instructor in Business Administration*

## COMMITTEES \*

## THE DEAN'S COUNCIL ‡

1951

John Albert Tillema  
 John Withrow Brewer

1952

Thelma Hunt  
 Ralph Dale Kennedy

1953

Everett Herschel Johnson  
 Roderic Hollett Davison

## COMMITTEE ON ADMISSION AND ADVANCED STANDING

The Dean of the School, *Chairman*  
 Harold Griffith Sutton, *Secretary*

Ralph Dale Kennedy  
 Frank Mark Weida  
 Donald Stevenson Watson

## GENERAL INFORMATION

## INTRODUCTORY

The George Washington University has provided training in both foreign service and governmental theory and administration throughout

\* The President of the University and the Dean of the School of Government are members ex officio of all committees.

‡ Elected by the Faculty.



its history. This was one of its purposes when chartered in 1821. The School of Government was established in 1928 to bring together in various undergraduate and graduate curricula the work offered in foreign service and much of the other academic work in the theory and administration of government.

It is the purpose of the School to give the student an understanding of his responsibilities under the Constitution of the United States in the conduct of public office—domestic and foreign. This can be accomplished not through any single course but through a curriculum which correlates social, economic, political, historical, business, and psychological studies.

The program embraces both graduate and undergraduate work. Curricula leading to the Bachelor of Arts degree are offered in Foreign Affairs, Accounting, Business Administration, and Statistics. A graduate curriculum in each of these subjects is also offered. In addition to the fields mentioned above, graduate work is available in Government and Economic Policy, Public Administration, Personnel Administration, and Vocational Counseling.

The Foreign Affairs program is broad, covering international political relations, international trade and finance, and regional studies. Its purpose is to equip students, by providing general background and specialized work, for careers in the field of American foreign relations. The diplomatic service of the United States, the several agencies of government with responsibilities in the international field, the international organizations, and American enterprise abroad offer opportunities in this field.

Governmental service requires special training and background in many other subjects, including economic research, statistical investigation, accounting, administrative management, and personnel administration. The academic background for such work is offered in the various curricula of the School and is described below.

#### REGULATIONS

*Students in the School of Government are subject to, and are expected to familiarize themselves with, the regulations concerning ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 11-23, and the University regulations stated on pages 36-42.*

#### AMOUNT OF WORK

A full-time student not on probation may take ordinarily not more than seventeen credit hours. A student employed more than twenty-four hours a week, who is not on probation, may take not more than ten credit hours.

A full-time undergraduate student whose quality-point index is 3.50



or higher may take not more than nineteen credit hours. An undergraduate student employed more than twenty-four hours a week, whose quality-point index is 3.50 or higher, may take up to twelve credit hours.

Exception to these rules will require the approval of the Dean.

#### ATTENDANCE

The student is held responsible for all the work of the courses in which he is registered, and all absences must be excused by the instructor in charge before provision is made for him to make up the work missed.

#### CLASSIFICATION OF STUDENTS

A student who holds an Associate in Arts degree from the Junior College or the equivalent from another accredited institution, and who has registered his choice of one of the prescribed curricula at the Office of the Registrar, is classed as a *junior*. A student who has completed thirty credit hours in the School of Government is classed as a *senior*. A student who has satisfactorily completed the work for the Bachelor's degree, and who has registered his choice of one of the prescribed fields of study at the Office of the Registrar, is classed as a *master in course*.

#### INDEPENDENT STUDY PLAN

Under the independent study plan a student of demonstrated capacity, with special interest in the subject matter of a course, may be permitted to undertake independent study under the personal direction of an instructor, in accordance with the rules of the division in which the subject falls. Credit under this plan is limited to the specific course-credits as designated in the list of courses of instruction in this CATALOGUE.

#### THE DEGREE OF BACHELOR OF ARTS IN GOVERNMENT

Upon the satisfactory completion of the undergraduate requirements of the School of Government, the degree of Bachelor of Arts in Government, with a designation of the major field of study, is conferred. The major fields are Foreign Affairs, Accounting, Business Administration, and Statistics.

Students who have a special need for integrating courses from several departments or from more than one major field may request approval, by a faculty committee, of a special major program. The same rules and regulations will apply as in the regularly offered majors.

Requirements for the undergraduate major in Economics and Public Administration are stated under the departments of Economics and Political Science, respectively.



## REQUIREMENTS FOR THE DEGREE

## SCHOLARSHIP

The system of grading and of computing scholarship is described in detail on pages 36 and 37.

In order to graduate, a student must have the following: (1) a quality-point index in all of his work of at least 2.00, and (2) a quality-point index of at least 2.50 in his major. The major includes the required courses and courses taken in the group options.

*Probation.*—A student must maintain a quality-point index of at least 2.00, or be placed on probation, where he will remain as long as his quality-point index is below 2.00.

*Suspension.*—A student who has a quality-point index below 1.00 or who is placed on probation for a third term, whether successive or after an interval, will be suspended.

For the purpose of these rules, the summer sessions are considered a term.

A student suspended for poor scholarship may apply for readmission after an interval of a calendar year. He must then submit evidence to the Committee on Admission and Advanced Standing that during his absence from the University he has so conducted himself as to indicate that he will profit by readmission. A student suspended twice for poor scholarship will not be readmitted.

A student with a limited schedule is affected by the foregoing scholarship rules only when he has undertaken fifteen credit hours.

## CURRICULUM REQUIREMENTS

For recommendation for graduation the School of Government requires, in addition to the appropriate Junior College work (see page 18 and curricula on pages 59 and 60), a minimum of sixty credit hours during the junior and senior college years, as set forth in one of the following curricula:

Foreign Affairs		Credit Hours
Econ. 181-82... International Economics .....		6
Hist. 150... European Diplomatic History Since 1854		
or Pol. Sc. 171... International Politics .....		3
Hist. 181-82... Diplomatic History of the United States.....		6
Pol. Sc. 172... International Organization: the United Nations.....		3
Pol. Sc. 181-82... International Law .....		6
Language .....	Advanced Composition and Conversation.....	6
Geog. ....		3
Group Option... (To be selected from one of the following groups).....		18
Electives .....	(To be selected in consultation with adviser).....	9
Total.....		60



All foreign affairs majors must complete the *required* courses listed above. The group option provides specialization in international politics, or international economics, or a geographic region, depending upon the student's interest. Normally no more than six credit hours may be taken in an option other than the one selected. Consent of the adviser must be obtained for such modification of the option selected.

#### Group I—International Political Relations

This group option (18 credit hours as noted in list above) is composed of courses in the departments of Political Science, History, and Geography which are related to the study of American diplomatic relations. The selection of courses must be made upon consultation with the adviser.

#### Group II—International Economic Relations

This group option (18 credit hours as noted in list above) is composed of courses offered primarily by the departments of Economics and Business Administration which are related to the study of American economic, financial, and business relationships with foreign countries. The selection of courses must be made upon consultation with the adviser.

#### Group III—Area or Regional Studies

This group option (18 credit hours as noted in list above) may be selected from courses offered in the departments of Economics, History, Political Science, and Geography, dealing with a geographic region such as Europe, Latin America, or the Pacific Area. This selection must be approved by the adviser.

Business Administration		Credit Hours
Bus. Adm. 101.....	Business Organization and Combination.....	3
Bus. Adm. 102.....	Business Management .....	3
Bus. Adm. 105.....	Personnel Management in Industry.....	3
Bus. Adm. 131.....	Business Finance .....	3
Bus. Adm. 141.....	Principles of Marketing.....	3
Bus. Adm. 198.....	Problems in Business Management.....	3
Econ. 121.....	Money and Banking.....	3
Pol. Sc. 127-28.....	Commercial Law .....	6
Acct. 102.....	Business Budgeting .....	3
		30
Group Option (to be selected from one of the following groups).....		15
Electives (to be selected in consultation with the adviser).....		15
Total.....		60

All Business Administration majors must complete the *required* courses listed above. The group options shown below provide specialization in several aspects of business. Selection of the option and the courses (15 credit hours) to be taken in it must be made upon consultation with the adviser. Normally no more than 6 credit hours may be taken in an option other than the one selected. Consent of the adviser must be obtained if the student wishes such modification of his option group.



## Group I—General Business

This group option is made up of selected courses offered by the departments of Accounting, Business Administration, Economics, and Statistics.

## Group II—Personnel Management

This group option is made up of selected courses offered by the departments of Business Administration, Economics, Psychology, Speech, and Statistics.

## Group III—Finance

This group option is made up of selected courses offered by the departments of Accounting, Business Administration, Economics, Political Science, and Statistics.

## Group IV—Marketing

This group option is made up of selected courses offered by the departments of Business Administration, Economics, Geography, and Statistics.

## Group V—Accounting

This group option is made up of selected courses offered by the departments of Accounting, Business Administration, and Economics.

## Group VI—Economics

This group option is made up of selected courses offered by the departments of Economics and Business Administration.

## Group VII—Statistics

This group option is made up of selected courses offered by the Department of Statistics.

*Foreign Commerce.*—Business Administration majors who wish to specialize in foreign commerce may request a modification of the above requirements. The modified major excludes some of the above required courses and adds others, such as a third year of foreign language, foreign markets, exporting and importing, economic geography, and other courses relating to overseas trade. Each program must be approved by the adviser.

## Accounting

	Credit Hours
Acct. 137.....Financial Statement Analysis.....	3
Acct. 147.....Cost Accounting .....	3
Acct. 151-52.....Intermediate Accounting .....	6
Acct. 161.....Auditing .....	3
Bus. Adm. 102.....Business Management .....	3
Bus. Adm. 131.....Business Finance .....	3
Econ. 121.....Money and Banking.....	3
Pol. Sc. 127-28.....Commercial Law .....	6
Group Option (to be selected from one of the following groups).....	30
Electives (to be selected in consultation with the adviser).....	15
Total.....	60



All Accounting majors must complete the *required* courses listed above. The group options shown below provide specialization in public accounting, commercial and industrial accounting, and governmental accounting and budgeting. Selection of the option and the courses (15 credit hours) to be taken in it must be made upon consultation with the adviser.

#### Group I—Public Accounting

This group option is made up of selected courses offered by the departments of Accounting, Business Administration, and Political Science.

#### Group II—Commercial and Industrial Accounting

This group option is made up of selected courses offered by the departments of Accounting, Business Administration, Economics, and Statistics.

#### Group III—Governmental Accounting and Budgeting

This group option is made up of selected courses offered by the departments of Accounting, Business Administration, Political Science and Economics.

Statistics		Credit Hours
Stat. 115-16....	Principles of Statistical Methods.....	6
Stat. 117.....	Analysis of Variance.....	3
Stat. 118.....	Correlation and the Chi-Square Test.....	3
Stat. 155-56....	Mathematical Probability .....	6
Stat. 157-58....	Mathematical Statistics .....	6
Group Option...	(To be selected from one of the following groups).....	24
Electives .....	(To be selected in consultation with adviser).....	12
Total.....		60

#### Group I—Economic and Business

Courses in this group are to be selected by students specializing in economic and business statistics upon consultation with the adviser. These courses are offered by the departments of Business Administration, Economics, and Statistics.

#### Group II—Education and Psychology

Courses in this group are to be selected by students specializing in educational and psychological statistics upon consultation with the adviser. These courses are offered by the departments of Psychology and Statistics. •

#### Group III—Mathematics and the Biological and Physical Sciences

Courses in this group are to be selected by students specializing in mathematical statistics and statistical applications in the biological and physical science fields. Selections must be made upon consultation with the adviser.

### EXAMINATIONS FOR WAIVING CURRICULUM REQUIREMENTS

A student desiring to omit a required course may take such examination as the department prescribes, and, on passing satisfactorily, he may be relieved of the curriculum requirement in that subject and may qualify for registration in an advanced course. Passing of this examination does not entitle the student to any hours of credit toward the degree.



A student desiring to take such examinations should make the request of the Dean and pay the required fee.

The candidate for the Master's degree who is deficient in undergraduate preparation may take a comprehensive examination on his undergraduate major field. Passing of this examination entitles the student to admission without taking specific courses to make up his deficiencies.

In courses taken to satisfy undergraduate deficiencies, the student must maintain at least a 3.00 average to be eligible for admission to graduate study.

### THE DEGREE OF MASTER OF ARTS IN GOVERNMENT

Upon the satisfactory completion of the graduate requirements of the School of Government, the degree of Master of Arts in Government, with a designation of the major field of study, is conferred. The major fields are Foreign Affairs, Accounting, Business Administration, Business and Economic Statistics, Government and Economic Policy, Public Administration, Personnel Administration, and Vocational Counseling.

Students who have a special need for integrating courses from two or more of the major fields of concentration for the Master's degree may request approval, by a faculty committee, of a special major program. All rules and regulations for the Master's degree will apply to such special programs.

A 3.00 average in the undergraduate major is normally required for admission to graduate study.

#### ADMISSION TO CANDIDACY

A student is formally recognized as a candidate for the Master's degree only when his application for candidacy has been approved by the Dean. Application is made on a form obtainable at the Office of the Registrar.

Candidates for the Master of Arts degree in Foreign Affairs or in Government and Economic Policy must show a reading knowledge (certified by the appropriate language department) of at least one modern foreign language, to be approved by the Dean. Such examination should be taken before the student begins the second 15 hours of his work. Examinations in modern foreign languages will be given on the dates specified in the University calendar.

#### REQUIREMENTS FOR THE DEGREE

A minimum of thirty credit hours of work, as outlined in the curricula on pages 143-46, must be completed successfully. Variations from these curricula require the permission of the Dean.



No part of the minimum requirement may be taken in any other institution.

A second-group course (numbered 101-200), taken either in the undergraduate or graduate years, may be counted toward the Master's degree only when registration for advanced credit has been approved at the beginning of the course by the Dean and by the officer of instruction, and provided that the student has done such extra work in the course as may be prescribed by the instructor.

Work completed more than three years prior to registration for the Master's degree will be counted only if the candidate successfully passes an examination on the subject matter of the work offered for credit.

In addition to the course examinations, the candidate must pass a comprehensive written examination in his major field. An oral examination on his thesis may also be required.

No work counted toward a Bachelor's degree may be counted toward a Master's degree.

A student who expects to continue his studies for the degree of Doctor of Philosophy after receiving the Master's degree will be assisted to plan his program so that he can qualify for admission to candidacy for the Doctorate.

#### RESIDENCE

No credit is granted for work done in absentia, i.e., without formal instruction, except for the thesis, which may be completed in absentia with the permission of the department concerned.

#### SCHOLARSHIP

A student whose scholarship is unsatisfactory may be suspended by the Dean. Regarding the system of grading, see pages 36 and 37.

#### CURRICULUM REQUIREMENTS

A normal program includes a minimum of twenty-four credit hours of course work and the thesis (six credit hours), to be selected from the courses listed under the chosen major field, and such other courses as may be necessary. Programs should be prepared in advance upon consultation with the adviser and submitted to the Dean on the appropriate form; if the program is not completed at the time of registration this must be attended to not later than one month following registration.

#### Foreign Affairs

Prerequisite: an undergraduate major in foreign affairs, economics, or political science, depending upon the field of specialization. Any course deficiency in foreign affairs must be made up.

The Master of Arts program in Foreign Affairs is offered in three fields of



specialization: International Economics, International Politics, and Regional Studies.

*International Economics.*—Graduate courses in economics (numbered 200 and over) in the field of international trade, the balance of payments, international financial policies, and international economic policies form the principal part of this specialization. Graduate courses in economic theory are recommended. Other courses may be included with the consent of the adviser.

*International Political Relations.*—Graduate courses in political science and history (numbered 200 and over), in international law, international politics, international organization, diplomatic history, and American foreign policy, comprise the principal requirements for this specialization. Related courses may be added with the consent of the adviser.

*Regional Studies.*—Graduate courses in economics, political science, history, and geography (numbered 200 and over) dealing with a geographic region, such as Latin America, Europe, or the Pacific Area, comprise the principal requirements. Other courses of broader scope in economics, history, and political science are recommended as part of the program. The adviser in all cases must approve such selections.

The listing of graduate courses for these programs is given in the departmental offerings for Economics, History, Political Science, and Geography.

### Accounting

Prerequisite: an undergraduate major in accounting or the equivalent. The Master of Arts program in Accounting requires the following courses:

Acct. 262.....	Advanced Auditing .....	3
Acct. 281.....	Advanced Accounting Theory.....	3
Acct. 295-96.....	Seminar in Accounting.....	6
Bus. Adm. 231.....	Corporation Financial Problems.....	3

The remaining nine hours of course work are to be selected from courses in or related to accounting with the approval of the adviser.

### Business Administration

Prerequisite: an undergraduate major in business administration or the equivalent.

The Master of Arts program in Business Administration requires the following courses:

Bus. Adm. 291-92....	Seminar in Business Management.....	6
Bus. Adm. 297-98....	Business Policy .....	6

The remaining twelve hours of course work are to be selected from graduate courses in or related to business administration with the approval of the adviser.

### Business and Economic Statistics

Prerequisite: an undergraduate major in statistics or the equivalent, coupled with adequate training in economics, business administration, and mathematics.

The Master of Arts program in Business and Economic Statistics requires at least twelve credit hours to be taken from the following:



Statistics 201.....	Design of Experiments.....	3
Statistics 202.....	Theory of Estimation and Testing Hypotheses.....	3
Statistics 203-4.....	The Theory of Econometrics.....	6
Statistics 205-6.....	Advanced Business and Economic Statistics..	6

The remaining twelve hours are to be selected from graduate work offered by the departments of Business Administration, Economics, and Statistics with the approval of the adviser.

### Government and Economic Policy

Prerequisite: an undergraduate major in economics or the equivalent.

Graduate courses in economics, especially those in the theory of economic policy, the level of income and employment, national income, economic stabilization, and fiscal policy, comprise the principal part of this program. Graduate courses in economic theory and statistics are recommended to complete the program. These courses and others that may be appropriate, are to be selected with the consent of the adviser.

### Public Administration

Prerequisite: an undergraduate major in political science, or an undergraduate background in the social sciences appropriate to specialization in this field.

The Master of Arts in Public Administration requires a program comprising graduate courses in governmental organization and functions, budgetary administration and controls, administrative principles and problems, and personnel management. Other related courses in political science and economics are added upon consultation with the adviser.

### Personnel Administration

Prerequisite: an undergraduate major in the social sciences, business administration, or education, coupled with courses in personnel psychology, social psychology, or abnormal psychology.

The program requires six graduate credits in personnel administration offered in the Department of Political Science; six graduate credits in psychology relating to personnel work; six graduate credits in labor relations and business administration; the remaining six credits are elective. Each program must be approved by the adviser.

### Vocational Counseling

Prerequisite: An undergraduate major in psychology, business administration, or education; or an undergraduate major in the social sciences appropriate to specialization in this field. The undergraduate background should include necessary basic training in such fields as psychology, sociology, statistics, labor economics, and business management or public administration.

The Master of Arts program in Vocational Counseling requires the following courses:

Psychology 227.....	Seminar: Educational and Vocational Guidance.....	3
Psychology 228.....	Seminar: Techniques of Counseling.....	3
Psychology 229.....	Occupational and Educational Information...	3
Psychology 231.....	Test Construction .....	3
Statistics 246.....	Personnel Measurement Techniques.....	3

The remaining nine hours are elective, with the approval of the adviser.



### THE THESIS

Students who plan to complete work for the Master's Degree in one year should register for the thesis at the beginning of the year; otherwise the thesis should be registered for not later than the beginning of the final year. The choice of the thesis subject must be approved by the professor in charge and recorded in the Office of the Registrar by the date announced in the University calendar. The typewritten thesis in its final form must have the approval of the professor in charge and must be presented to the Dean by the student not later than the date announced in the University calendar. Requirements in regard to the form of the thesis are stated on page 40, and additional information will be supplied by the Dean.

Payment of tuition for the thesis entitles the candidate, during the academic year of registration, to the advice and direction of the member of the Faculty under whom the thesis is to be written. In case a thesis is unfinished, an additional successive academic year is granted without further tuition payment. If the preparation of the thesis extends beyond the two-year period, it must be registered for again, and tuition paid on the same basis as for a repeated course.

### FOREIGN SERVICE REVIEW COURSE

The School of Government is continuing to offer its summer Foreign Service Review Course, started in 1946, for persons interested in preparing for the written Foreign Service Examination given by the Department of State.

Since this Course is primarily an intensive review of college work already completed, and is offered as a service to the superior graduate student who wishes to prepare for the written Foreign Service Examination, no academic credit will be given.

Subjects to be reviewed during the 1950 Course will include the following: American History and American Diplomatic History; European History and European Diplomatic History; Principles of Economics (including International Economics and Foreign Exchange); Geography; General Statistics; Composition; Races, Languages, and Religions; Contemporary Affairs.

For further details, including designation by the Department of State, admission requirements, fees, and living accommodations, address The Director, Foreign Service Review Course, School of Government.



## THE DIVISION OF UNIVERSITY STUDENTS

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Elmer Louis Kayser, Ph.D., LL.D., *Dean of the Division of University Students*

### THE DEAN'S COUNCIL\*

Ralph Dale Kennedy

Francis Edgar Johnston

Charles Rudolph Naeser

### GENERAL INFORMATION

#### INTRODUCTORY

The Division of University Students was established in 1930. In this Division are registered mature students who wish to undertake University courses either for credit or as auditors but who are not interested in working toward degrees in this University.

#### REGULATIONS

*Students in the Division of University Students are subject to, and are expected to familiarize themselves with, the regulations concerning ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 11-23; the University regulations stated on pages 36-42; and the regulations concerning PROBATION, SUSPENSION, AND WARNINGS which are the same as those stated on pages 54 and 55 under the Junior College*

#### TRANSFER TO REGULAR STATUS

A "University student" may be transferred, at his request, to another college or school of the University only upon complying with the regulations of the specific college or school to which he wishes to transfer. The student should familiarize himself with the regulations printed in the University CATALOGUE concerning admission, residence, amount and quality of work. Specifically, he should note that in some cases not more than thirty (30) hours of credit may be transferred from this Division; that at least the last thirty (30) credit hours must be spent in residence in the college or school granting the degree; and that a general quality-point index of 2.00 must be maintained, with an index of 2.50 in the major.

\* The President of the University and the Dean of the Division of University Students are members ex officio of the council.



## THE DIVISION OF SPECIAL STUDENTS

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*

Warren Reed West, Ph.D., *Dean of the Division of Special Students*

### THE DEAN'S COUNCIL\*

Raymond Pugh Eyman

Thelma Hunt

Fred Salisbury Tupper

### GENERAL INFORMATION

#### INTRODUCTORY

The Division of Special Students was organized in 1944. To this Division may be admitted students who are in the process of qualifying for degree candidacy. Students in this Division are designated "special students".

#### REGULATIONS

*Students in the Division of Special Students are subject to, and are expected to familiarize themselves with, the regulations concerning ADMISSION, REGISTRATION, FEES AND FINANCES stated on pages 11-23; and the University regulations stated on pages 36-42.*

#### SCHOLARSHIP

A student in this Division may be dropped for reasons of scholarship at any time his quality-point index falls below 2.00.

The system of grading and computing scholarship is described in detail on pages 36 and 37.

#### AMOUNT OF WORK

In each individual case, the schedule will be reduced when it is deemed advisable.

#### ACADEMIC SCHEDULE

The schedule of the "special student" is made up of courses required in the curriculum to which he wishes to transfer. If he has not completed the language requirements of this curriculum at the time of his admission to the University, he must include a language course in his academic schedule until this requirement is met. Second- or third-group courses may not be taken unless all first-group requirements have been met or are being met concurrently.

\* The President of the University and the Dean of the Division of Special Students are members ex officio of the council.



## TRANSFER TO REGULAR STATUS

A "special student" may be transferred to another college or school of the University only upon complying with the regulations of the specific college or school to which he wishes to transfer. The student should familiarize himself with the regulations printed in the University CATALOGUE concerning admission, residence, and amount and quality of work. Specifically, he should note that in some cases not more than thirty (30) hours of credit may be transferred from this Division; and that both the residence and scholarship requirements of the school to which he is transferring must be met.



## THE SUMMER SESSIONS

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Mitchell Dreese, Ph.D., *Dean of the Summer Sessions*

The George Washington University is continuing the accelerated program started in 1942. During the summer the University offers two eight-week sessions which together constitute the equivalent of the fall or winter term of the academic year. In addition, the School of Education offers a special six-week session for teachers, with a pre-session of three weeks and a post-session of three weeks. Students may enter the Summer Sessions at the beginning of any of the sessions.

During the summer of 1950, courses are offered in the Junior College, Columbian College (the senior college), the Law School, the School of Engineering, the School of Education, and the School of Government.

For a complete statement concerning summer-term work, see the Summer Sessions catalogue.



THE SUMMER SESSIONS

The University of Washington is continuing the accelerated program started in 1920. During the summer the University offers two regular sessions which together constitute the equivalent of the fall or winter term of the academic year. In addition the School of Education offers a special six-week session for teachers with a pre-session of three weeks and a post-session of three weeks. Students may enter the Summer Session at the beginning of any of the sessions. During the summer of 1920, courses are offered in the Junior College, Columbian College (the senior college), the Law School, the School of Engineering, the School of Education, and the School of Government. For a complete statement concerning summer-term work see the Summer Session Catalogue.



## COURSES OF INSTRUCTION

The following parts of this Catalogue, under the alphabetical arrangement of the departments of instruction, list the courses of instruction offered by the University in the summer of 1920 and in the autumn year 1921-22. The courses as here listed are subject to some slight change. The University reserves the right to withdraw any course whenever.

### Hours of Instruction

Courses of instruction are conducted in the morning, afternoon, and evening. Evening classes are identical with the day-time sections of the corresponding courses, are taught by the same instructors, and carry the same amount of credit. By taking the evening and summer classes and extending the time of study beyond the customary four years, a student who is able to do so may save at least one college year, may complete a degree in less than four years, and may enter the service of his country with a higher rank.

## COURSES OF INSTRUCTION

### Explanation of Course Numbers

In the number preceding the name of the course indicates that the course is offered in the [ ] term, or also indicates that it is offered in the spring term, and a fourth number (1-4) indicates that it is offered in the fall term and continues in the winter term. The letter "a" following the first course number (e.g., 101a) indicates that the course is offered in the fall term; it is given in the winter term. The letter "b" following the second course number (e.g., 101b) indicates that the course is offered in the winter term; it is given in the fall term. The letter "c" following the third course number (e.g., 101c) indicates that the course is offered in the summer term; it is given in the fall term.

In the departments of the School of Agriculture, first-year courses are numbered from 101 to 109, second-year courses from 201 to 209, third-year courses from 301 to 309, and fourth-year courses from 401 to 409. In the Law School, first-year courses are numbered from 101 to 109, second-year courses from 201 to 209, third-year courses from 301 to 309, and graduate courses from 401 to 409.

In all other schools and colleges the following system of numbering is used:

First-year courses.—Courses numbered from 1 to 100 are placed in the first year of the freshman and sophomore years. When the number of the course and the term that they take is taken by junior and senior students, they may be taken by graduate students to make an undergraduate distinction of no particular or substantial course, but they may not be counted toward a higher degree.

Second-year courses.—Courses numbered from 101 to 200 are placed in the second year of the sophomore and junior years.



COURSES OF INSTRUCTION



## COURSES OF INSTRUCTION

On the following pages of this CATALOGUE, under the alphabetically arranged names of the departments of instruction, are listed the courses of instruction offered by the University in the summer of 1950 and in the academic year 1950-51. The courses as here listed are subject to some slight change. The University reserves the right to withdraw any course announced.

### HOURS OF INSTRUCTION

Courses of instruction are scheduled in the morning, afternoon, and evening. Evening classes are identical with the daytime sections of the corresponding courses, are taught by the same instructors, and carry the same amount of credit. By taking the evening and summer classes and extending the time of study beyond the customary four years, a student who is able to give only part of his time to college work may complete a regular curriculum and obtain a degree.

### EXPLANATION OF COURSE NUMBERS

*An odd number preceding the name of the course indicates that the course is offered in the fall term; an even number, that it is offered in the winter term; and a double number (157-58), that it begins in the fall term and continues in the winter term.* The letter "x" following an odd course number (e.g., 21x) indicates that the course, normally offered in the fall term, is given in the winter term. The letter "x" following an even course number (e.g., 22x) indicates that the course, normally offered in the winter term, is given in the fall term.

In the departments of the School of Medicine, first-year courses are numbered from 101 to 200; second-year courses, from 201 to 300; third-year courses, from 301 to 400; and fourth-year courses, from 401 to 500.

In the Law School, first-year courses are numbered from 101 to 200; second-year courses, from 201 to 300; third-year courses, from 301 to 400; and graduate courses, from 401 to 500.

In all other schools and colleges the following system of numbering is used:

*First-group courses.*—Courses numbered from 1 to 100 are planned for students in the freshman and sophomore years. With the approval of the adviser and the dean, they may also be taken by juniors and seniors. In certain instances, they may be taken by graduate students to make up undergraduate deficiencies or as prerequisite to advanced courses, but they may not be credited toward a higher degree.

*Second-group courses.*—Courses numbered from 101 to 200, are planned



for students in the junior and senior years. They may be credited toward higher degrees only when registration for graduate credit has been approved at the beginning of the course by the dean responsible for the graduate work and by the officer of instruction, and when the completion of additional work has been certified by the officer of instruction.

*Third-group courses.*—Courses numbered from 201 to 300 are planned primarily for graduate students. They are open, with the approval of the officer of instruction, to qualified seniors; they are not open to Junior College students or other undergraduates.

#### INDICATION OF THE AMOUNT OF CREDIT

The number of credit hours given for the satisfactory completion of a course is, in most cases, indicated in parentheses after the name of the course. Thus, a year course giving three hours of credit each term is marked (3-3), and a term course giving three hours of credit is marked (3). A credit hour usually consists of the completion of one fifty-minute period of class work or of one laboratory period a week for one term.

A dagger (†) preceding the number of a year course indicates that the course *may not be entered in the second term and that credit will not be given until the work of both terms has been completed.*



## ACCOUNTING

- Ralph Dale Kennedy, Ph.D., *Professor of Accounting, Executive Officer*  
 Orton Wells Boyd, A.M., C.P.A., *Professorial Lecturer in Accounting*  
 Edwin Lewis, M.B.A., *Lecturer in Accounting*  
 Frank Robert Byrne, M.B.A., LL.M., C.P.A., *Lecturer in Accounting*  
 \_\_\_\_\_, *Assistant Professor of Accounting*  
 James Leonard Buckler, A.B., *Lecturer in Accounting*  
 Ira Ernest Steele, A.M., *Lecturer in Accounting*  
 William McPheeters Jones, B.S., C.P.A., *Lecturer in Accounting*  
 Harold Jerome Bobys, A.B., C.P.A., *Lecturer in Accounting*  
 Frederick Charles Kurtz, M.B.A., *Instructor in Accounting*  
 \_\_\_\_\_, *Instructor*

*Minimum requirements for the Bachelor's degree.*—See pages 143, 144, and 145.  
*Minimum requirements for the Master's degree.*—See pages 147-48 and 149.

### FIRST GROUP

- 1-2 *Introductory Accounting* (3-3) Kennedy and Staff  
 Study of basic principles underlying accounting records used by single proprietorships, partnerships, and corporations; preparation of the work sheet and financial statements; introduction to cost accounting and to valuation and income determination problems. Morning, afternoon, and evening sections. (Also offered 1950 summer term.)  
 Accounting 1x—same as Accounting 1, but offered winter term. Morning and evening sections.  
 Accounting 2x—same as Accounting 2, but offered fall term. Prerequisite: Accounting 1, or permission of the instructor. Morning and evening sections.

### SECOND GROUP

- 102 *Business Budgeting* (3) Buckler  
 Study of the principles, preparation, and use of a business budget, with emphasis on the importance of the budget as a managerial tool. Prerequisite: Accounting 1-2. Morning. (Also offered 1950 summer term.)  
 Accounting 102x—same as Accounting 102, but offered fall term. Evening.  
 111 *Federal Taxation* (3) Boyd and Staff  
 Study of the accounting and reporting requirements of federal taxation, with emphasis on income and social security taxes; business management problems presented by these taxes will also be considered. Prerequisite: Accounting 1-2. Morning and evening sections. (Also offered 1950 summer term.)



- 112 *Federal Tax Problems* (3) Boyd and Staff  
Specialized study planned as a guide to federal tax practice; analysis of tax statutes, regulations, and leading cases. Prerequisite: Accounting 111. Morning and evening sections.
- 121 *Governmental Budgeting* (3) Buckler  
Policies, practices, and procedures relating to the formulation and execution of the federal budget; comparison with municipal and state budgets. Prerequisite: Accounting 1-2, or permission of the instructor. Evening.
- 126 *Governmental Accounting* (3) Lewis  
Accounting problems of municipal, state, and federal governments; emphasis on appropriation accounts, encumbrances, and fund accounting. Prerequisite: Accounting 1-2, or permission of the instructor. Evening.
- 137 *Financial Statement Analysis* (3) Kennedy, Steele  
Methods and techniques of preparing, analyzing, and interpreting financial statements for the guidance of operating executives, directors, stockholders, and creditors; determination and interpretation of trends and ratios. Prerequisite: Accounting 1-2. Morning. (Also offered 1950 summer term.)  
Accounting 137x—same as Accounting 137, but offered winter term. Evening.
- 147 *Cost Accounting* (3) ———, Byrne  
Study of the purpose, objectives, and theory of industrial cost accounting, with emphasis on inventory control, payroll records, interrelation of cost and general accounts, and types of cost systems. Prerequisite: Accounting 1-2. Evening. (Also offered 1950 summer term.)  
Accounting 147x—same as Accounting 147, but offered winter term. Morning.
- 148 *Advanced Cost Accounting* (3) ———  
Cost accounting principles and procedures with emphasis on the problems of cost analysis and control, standard costs, and distribution costs. Prerequisite: Accounting 147, or permission of the instructor.  
Accounting 148x—same as Accounting 148, but offered fall term. Evening.
- 151-52 *Intermediate Accounting* (3-3) Kurtz, Steele  
Study of valuation and income determination problems; treatment of depreciation, funds, and reserves; accounting for the organization, financing, operation, and dissolution of partnerships and corporations. Prerequisite: Accounting 1-2. Morning and evening sections. (Also offered 1950 summer term.)
- 153 *Advanced Accounting* (3) ———  
Intensive study of consolidated statements, statement of affairs, realization and liquidation reports, and estate and trust accounting. Prerequisite: Accounting 151-52. Morning and evening sections. (Also offered 1950 summer term.)



- 161 *Auditing* (3) \_\_\_\_\_, Byrne  
Study of the duties and responsibilities of the auditor, principles and procedures of making audits, the technique of verifying each financial statement item, and the preparation of audit working papers and reports. Prerequisite: Accounting 151-52. Morning. (Also offered 1950 summer term.)  
Accounting 161x—same as Accounting 161, but offered winter term. Evening.

- 191 *Accounting Systems* (3) \_\_\_\_\_  
Theory and procedure of designing and installing accounting systems for collecting, recording, analyzing, and presenting accounting data. Prerequisite: Accounting 147, 152, and 161, or permission of the instructor. Evening.

- 198 *Professional Accounting Review* (3) \_\_\_\_\_  
Review and coordination of the principles and techniques developed in the accounting curriculum, in preparation both for general practice in the field of accountancy and for professional accounting examinations. Prerequisite: Accounting 111, 126, 147, 153, and 161, or permission of the instructor. Morning and evening sections.

## THIRD GROUP

- 226 *Governmental Accounting and Budgeting Problems* (3) \_\_\_\_\_ Lewis

Advanced principles and practices in federal accounting relationship to general policy and administration. Prerequisite: Accounting 121 and 126, or permission of the instructor. (Not offered in 1950-51.)

- 262 *Advanced Auditing* (3) \_\_\_\_\_  
Preparation of an audit report, investigations in connection with reorganizations and financing programs, accounting statements to be filed with Securities and Exchange Commission, current developments of auditing standards and practice, internal auditing program. Prerequisite: Accounting 161 and permission of the instructor. Evening.

- 281 *Advanced Accounting Theory* (3) \_\_\_\_\_ Kennedy  
An intensive study of advanced accounting principles and concepts and of recent theories in connection with the valuation of assets and the determination of income. Prerequisite: eighteen hours of Accounting or permission of the instructor. Evening.  
Accounting 281x—same as Accounting 281, but offered fall term. Morning.

- 295-96 *Seminar in Accounting* (3-3) \_\_\_\_\_ Kennedy  
Study, investigation, and discussion of selected accounting research topics and problems; individual oral and written reports. Admission by permission of the instructor. Evening.

- 299-300 *Thesis* (3-3) \_\_\_\_\_ The Staff  
Time to be arranged. (Also offered 1950 summer term.)



## ANATOMY

Warren Andrew, Ph.D., M.D., *Professor of Anatomy, Executive Officer*  
 Ross Clayton MacCardle, Ph.D., *Professorial Lecturer in Anatomy*  
 Webb Edward Haymaker, M.S., M.D., *Professorial Lecturer in Anat-*  
*omy*

Paul Calabrisi, A.M., *Associate Professor of Anatomy*  
 Ivor Cornman, Ph.D., *Assistant Research Professor of Anatomy*  
 Edgar Pleasant Jayne, Ph.D., *Assistant Professor of Anatomy*  
 Merton Theodore Waite, M.D., *Clinical Instructor in Anatomy*  
 Wilfred Walter Eastman, M.D., *Clinical Instructor in Anatomy*

101-2 *Gross Anatomy* Calabrisi and Staff  
 Regional dissection of the human body supplemented with lectures and quiz sections. Study of X-ray anatomy to emphasize the functional aspects of the position, shape, and relation of the viscera and skeletal components. Eighteen hours a week, fall term; nine hours a week, winter term.

103 *Human Embryology* Andrew and Staff  
 The origin and development of the human body. Special emphasis on the value of embryology in interpreting anatomical anomalies and variations as seen in gross dissection, surgery, obstetrics, and pathology. Three hours a week.

105 *Neuro-anatomy* Haymaker and Staff  
 The macroscopic and microscopic study of the central nervous system and the special sense organs. Emphasis on such dynamic aspects as development, pathways, lesions, etc. Six hours a week.

106 *Microscopic Anatomy* Andrew and Staff  
 Study of the detailed minute structure of cells, tissues, and organs of the human body with emphasis on the relation of structure to function. Recognition and interpretation of histological sections tested by practical examinations. Six hours a week.

201-2 *Seminar* Andrew and Staff  
 Reports and discussions of special topics by the Staff and graduate students. Regular medical students are encouraged to attend. One hour a week.

295-96 *Research* Andrew and Staff  
 Hours and credits to be arranged.

299-300 *Thesis (3-3)* The Staff



## ANESTHESIOLOGY

Donald Harrison Stubbs, A.M., M.D., *Clinical Professor of Anesthesiology*

Charles Seymour Coakley, M.D., *Associate Professor of Anesthesiology, Executive Officer*

Seymour Alpert, A.B., M.D., *Assistant Professor of Anesthesiology*

William Eldridge Bageant, M.D., *Clinical Instructor in Anesthesiology*

Allen Widome, M.D., *Clinical Instructor in Anesthesiology*

### 261 *Anesthesiology*

Review of basic sciences and correlation between basic sciences and clinical work. One hour a week.

The Staff

### 433-34 *Advanced Anesthesiology*

Fourth-year students are rotated through the work of the department for a period of three weeks for two students and assigned to work in operating rooms, conferences, and seminars.

The Staff

### 480 *Research*

Hours to be arranged.

The Staff



## ART

Norris Ingersoll Crandall, M.Arch., *Professor of Art, Executive Officer*  
 Donald Chenoweth Kline, B.Arch., *Associate Professor of Art*

### STAFF IN THE CORCORAN SCHOOL OF ART

**DRAWING AND PAINTING:** Richard Lahey, *Principal*. Eugen Weisz,  
 Edmund Archer, Jessalee Sickman, Kenneth Stubbs, Omar Carrington

**SCULPTURE AND CARVING:** Heinz Warneke

**COMMERCIAL ART:** Henry Liebschutz, William Sholar, Charles Isbell

*The major in art appreciation (Departmental).*—Prerequisite: Art 11-12 and 71-72. Required: Art 101-2, 121-22, 141-42, 151-52, and 161-62.

*The major in drawing and painting (Departmental).*—Prerequisite: Art 11-12. Required: Art 121-22, and at least thirty credit hours of drawing and painting. The classes in drawing and painting are held at the Corcoran School of Art.

### FIRST GROUP

- |       |  |                     |
|-------|--|---------------------|
| 11-12 | <i>Art Appreciation (3-3)</i>  | Crandall            |
|       | An introduction to the appreciation of the fine arts and to the interpretation of the paintings of the old and modern masters. Morning and evening sections. |                     |
| 67-68 | <i>Life and Portrait—Drawing and Painting (6-6)</i>  | Archer, Stubbs      |
|       | Morning, afternoon, and evening sections.  |                     |
| 71-72 | <i>Introduction to the Arts in America (3-3)</i>   | Kline               |
|       | Painting, sculpture, architecture, furniture, music, and folk arts. Morning, afternoon, and evening sections.  |                     |
| 73-74 | <i>Still Life and Portrait—Drawing and Painting; Antique Drawing (6-6)</i>   | Sickman, Carrington |
|       | Morning, afternoon, and evening sections.  |                     |

### SECOND GROUP

- |        |   |          |
|--------|---|----------|
| 101-2  | <i>The Design of the Home (3-3)</i>   | Crandall |
|        | The history and development of the home, and home furnishings in relation to home design. 1950-51 and alternate years, evening. 1951-52 and alternate years, afternoon. |          |
| 121-22 | <i>World History of Art (3-3)</i>   | Kline    |
|        | The fine arts from ancient times to the present. Prerequisite: Art 11-12. 1950-51 and alternate years, evening. 1951-52 and alternate years, afternoon.                 |          |



- 141-42 *Interior Decoration* (3-3) Kline  
The selection and use of furniture, wall and floor coverings, draperies, and lighting. 1950-51 and alternate years, afternoon. 1951-52 and alternate years, evening.
- 143-44 *Folk Arts of America* (3-3) Kline  
Woodcarving, painting, ceramics, glass, furniture, and music. (Not offered in 1950-51.)
- 151-52 *Modern Art* (3-3) Crandall  
The interpretation of the fine arts of the nineteenth and twentieth centuries of Europe and the Americas. Prerequisite: Art 11-12. 1950-51 and alternate years, afternoon. 1951-52 and alternate years, evening.
- 161-62 *History of Art Criticism* (3-3) Crandall  
A survey of art criticism from ancient Greece to the present. Admission by permission of the instructor. Evening.
- 165-66 *Life and Portrait—Drawing and Painting* (6-6) Lahey, Weisz, Archer  
Morning, afternoon, and evening sections.
- 175-76 *Composition* (6-6) Weisz  
Design and pictorial organization; drawing and painting. Afternoon.
- 179-80 *Sculpture* (6-6) Warneke  
Portrait-life modeling and composition in clay, plaster and wood carving. Afternoon and evening sections.
- 183-84 *Design and Commercial Art* (6-6) Liebschutz, Sholar, Isbell  
Prerequisite: One year (6 hours daily) in a professional art school or the equivalent, or by permission of the instructor. Morning, afternoon, and evening sections.
- 185-86 *Advanced Commercial Art*  
Credits to be arranged. (Not offered in 1950-51.)



## BACTERIOLOGY, HYGIENE, AND PREVENTIVE MEDICINE

Leland Wilbur Parr, Ph.D., *Professor of Bacteriology, Executive Officer*  
 Ralph Gregory Beachley, M.D., Dr.P.H., *Adjunct Professor of Public Health Practice*  
 Angus MacIvor Griffin, Ph.D., *Professor of Bacteriology*  
 Mary Louise Robbins, Ph.D., *Assistant Professor of Bacteriology*  
 William Gray McCarten, M.S., *Instructor in Bacteriology*  
 Lewis Walke McIlhany, M.S., M.D., *Clinical Instructor in Public Health Practice*

### SEMINAR LECTURERS

Charles Armstrong, B.S., M.D., Sc.D., *Professorial Lecturer in Preventive Medicine*  
 Rolla Eugene Dyer, A.B., M.D., LL.D., *Professorial Lecturer in Preventive Medicine*  
 Royd Ray Sayers, A.M., M.D., *Professorial Lecturer on Industrial Hygiene*  
 Sara Elizabeth Branham, Ph.D., M.D., Sc.D., *Professorial Lecturer in Preventive Medicine*  
 Chester Wilson Emmons, Ph.D., *Professorial Lecturer on Medical Mycology*  
 Willard Hull Wright, D.V.M., Ph.D., *Professorial Lecturer on Medical Zoology*  
 John Roderick Heller, Jr., B.S., M.D., *Professorial Lecturer on Venereal Disease Control*  
 Carl John Lauter, M.S., *Professorial Lecturer on Municipal Sanitation*  
 Robert Carter Cook, *Professorial Lecturer on Medical Genetics*  
 Robert Hanna Felix, M.D., M.P.H., *Professorial Lecturer on Mental Hygiene*

### 112 *General Bacteriology* (4)

Robbins

A study of the fundamentals of bacteriology, including hygienic applications. Methods of cultivation and control of several groups of microorganisms are studied in the laboratory. Prerequisite: any biological laboratory science; Chemistry 151-52. Laboratory fee, \$7.50. Tues., Thurs., and Sat., 9:10 to 12:00 A.M.

### 209 *Medical Microbiology* (1-11)

Parr, Griffin

Bacteria, rickettsia, viruses, yeasts, molds, protozoa, and metazoa which relate to the health and diseases of man—cultural study of most important forms; methods of diagnosis by microscopic, cultural,



immunologic, and animal reactions; theory and methods of immunology; vaccines; serums; antibiotics. Open to suitably prepared graduate students; may be elected as a whole or in part by adding the appropriate letter to the course number, with credit allocated as follows: (a) *Bacteriology*, including rickettsia and viruses (7); (b) *Parasitology*, including medical mycology (3); (c) *Immunology* (1). Time to be arranged.

210 *Fundamentals of Epidemiology and Public Health* (2) Parr

Sources, modes, and implications of infection and injury. Prerequisite: Bacteriology 112 or 209. Mon., 2:00 to 4:00 P.M.

219-20 *Advanced Microbiology* Griffin and Staff

Special study of advanced methods and current problems in microbiology for suitably qualified students specializing in microbiology. Prerequisite: Bacteriology 112 or 209; Chemistry 151-52 or the equivalent; permission of the instructor. Time and credits to be arranged.

229 *Virus Techniques* (3) Robbins

Principal cultural and serological methods used in the study of viruses and rickettsiae. Prerequisite: Bacteriology 112 or 209 and permission of the instructor. Offered in 1950-51 and alternate years. Time to be arranged.

230 *Statistics in Microbiology* (3) Griffin

The application of statistical methods to the problems of microbiology. Prerequisite: entrance or elementary college algebra. Offered in 1951-52 and alternate years.

232 *Immunological Methods* (3) Griffin

Preparation and testing of serological materials. Demonstration of basic serological phenomena. Prerequisite: Bacteriology 112 or 209 and permission of the instructor. Offered in 1950-51 and alternate years. Time to be arranged.

295-96 *Research in Bacteriology* The Staff

Time and credits to be arranged.

299-300 *Thesis* (3-3) The Staff

305-6 *Staff Seminar* (I-I) The Staff

Bi-weekly throughout the year.

401-2 *Public Health Practice* (I-I) Beachley

Study of public health practice at national, state, city, and county levels. Public and private agencies. Sat., 10:00 A.M.

404 *Industrial Hygiene* (I) Sayers

For senior medical students and qualified graduate students. Lecture course dealing with the problems of health maintenance and disease prevention and cure as affected by industry. Time to be arranged.



## BIOCHEMISTRY

Joseph Hiram Roe, Ph.D., *Professor of Biochemistry, Executive Officer*  
 Arnold Kent Balls, Ph.D., *Professorial Lecturer in Biochemistry*  
 William Henry Sebrell, Jr., M.D., *Professorial Lecturer on Nutrition*  
 George Washington Irving, Jr., Ph.D., *Professorial Lecturer on Proteins*  
 Bernard Leonard Horecker, Ph.D., *Professorial Lecturer on Enzymes*  
 Carleton Raymond Treadwell, Ph.D., *Associate Professor of Biochemistry*  
 Mary Barbara Mills, Ph.D., *Assistant Professor of Biochemistry*  
 Benjamin Williams Smith, M.S., *Instructor in Biochemistry*

- 113-14 *Biochemistry* Roe and Staff  
 Physiological and clinical chemistry for the first-year medical student.  
 Two lectures and two three-hour laboratory periods a week.
- 221-22 *Biochemistry (4-4)* Treadwell  
 A lecture and laboratory course for nonmedical students. Prerequisite: Chemistry 22 and 152. Material fee, \$12 a term. Tues. and Thurs., 9:00 to 12:00 A.M. and 1:00 to 2:00 P.M.
- 224 *Biochemistry of the Enzymes (1)* Horecker  
 Lecture course dealing with the biochemistry of the enzymes and enzyme reactions. Prerequisite: Biochemistry 113 or 221. Mon. 5:00 P.M.
- 225 *Biochemical Preparations* The Staff  
 Material fee, \$10. Time and credits to be arranged.
- 226 *Biochemical Laboratory Methods* The Staff  
 Material fee, \$12. Time and credits to be arranged.
- 227-28 *Biochemistry Seminar (1-1)* Roe  
 The current literature in the field of biochemistry, mainly for graduate students, but open to a limited number of specially qualified medical students. Fri., 4:00 P.M.
- 231 *Proteins and Amino Acids (1)* Irving  
 A lecture course. Prerequisite: Biochemistry 114 or 222. (Not offered in 1950-51.)
- 251 *Carbohydrate Metabolism (1)* Roe  
 A lecture course. Prerequisite: Biochemistry 114 or 222. 1950-51 and alternate years, Sat., 9:00 A.M.
- 261 *Biochemistry of the Lipids (1)* Treadwell  
 A lecture course. Prerequisite: Biochemistry 114 or 222. 1951-52 and alternate years, Sat., 9:00 A.M.



295-96 *Research in Biochemistry*  
Time and credits to be arranged.

Roe, Treadwell

299-300 *Thesis* (3-3)

Roe, Treadwell

404 *Applied Nutrition* (1)

Sebrell

For senior medical students and graduate students. Lecture course upon dietary requirements, deficiency diseases, and therapeutic diets.

Prerequisite: Biochemistry 114 or 222. Sat., 11:00 A.M.



## BIOLOGY \*

Paul William Bowman, Ph.D., *Professor of Biology, Executive Officer*  
 Sam Clark Munson, M.S., *Assistant Professor of Biology*  
 Robert Carter Cook, *Lecturer on Genetics*  
 Paul Louis Illg, A.M., *Lecturer in Biology*

*The major in Biology (Field-of-Study).*—Students will be required to demonstrate in the Major Examination a reasonable knowledge and understanding of the classification and life histories of plants and animals, ecology, geology, evolution, heredity, the physical and cultural development of man, public health problems, and the history of biology. The course offerings will be correlated and supplemented by supervised study in the proseminar. For details, see the pamphlet, which is available in the Office of the Dean of Columbian College, or consult the Executive Officer of the Department.

### FIRST GROUP

- 1-2 *Survey in Biology* (3-3) Munson, Illg  
 Systematic study of the plant and animal kingdoms, with emphasis upon the interdependences of living things and their relations with their environments. Introduction to evolution, heredity, public health, and conservation. Material fee, \$4.50 a term. Lecture (1 hour)—afternoon and evening sections; laboratory (2 hours)—morning, afternoon, and evening sections; field trip to nearby countryside and to museums and other places of biological interest (3 hours)—morning and afternoon sections. (Also offered 1950 summer term.)  
 Biology 1x—same as Biology 1, but offered winter term. Morning.

### SECOND GROUP

- 115-16 *Cytology* (3-3) Bowman  
 Study of plant and animal cells and their components, including the chromosomes and their role in heredity, with training in the preparation of materials for study. Prerequisite: one year of college work in biology, botany, or zoology. Material fee, \$6 a term. Lecture (1 hour)—evening; laboratory (4 hours)—afternoon and evening. (Also offered 1950 summer term—Biology 115 (3).)  
 Biology 115x—same as Biology 115, but offered winter term. Lecture—evening; laboratory—afternoon and evening sections.  
 Biology 116x—same as Biology 116, but offered fall term. Lecture—evening; laboratory—afternoon and evening sections.
- 127-28 *Genetics* (3-3) Cook  
 A lecture course in which the general principles are illustrated with specific examples of inheritance in plants and animals, including man. Prerequisite: one year of college work in biology, botany, or zoology. Morning. (Also offered 1950 summer term—Biology 127 (3).)

\* See also departments of Botany and Zoology, pages 174-75 and 322-24.



139 *Cell Physiology* (3)

Yocum

The fundamental physiology of protoplasm. Prerequisite: Chemistry 12 and one year of college biology, botany, or zoology. 1950-51 and alternate years. Morning.

199-200 *Proseminar in Biology* (3-3)

Bowman

Individually planned and directed study by means of which majors in biology may correlate and supplement the subject matter presented in various regular courses. Time to be arranged.

## THIRD GROUP

201-2 *Seminar: Cytology* (3-3)

Bowman

Time to be arranged.

211-12 *Research in Cytology*

Bowman

Time and credits to be arranged. (Also offered 1950 summer term—Biology 211.)

299-300 *Thesis* (3-3)

Bowman

Time to be arranged. (Also offered 1950 summer term—Biology 299 (3).)



## BOTANY \*

Lawson Edwin Yocum, Ph.D., *Professor of Botany, Executive Officer*  
 William Webster Diehl, Ph.D., *Adjunct Professor of Mycology*  
 Lyman Bradford Smith, Ph.D., *Professorial Lecturer on Taxonomy*  
 John Edward Cantlon, B.S., *Assistant Professor of Botany*  
 Caroline Lander Adams, Ph.D., *Lecturer in Botany*

*Minimum requirements for the major in Botany (Departmental).—Twenty-four credit hours of botany beyond the introductory courses, with collaterals as recommended in conference.*

### FIRST GROUP

#### 1 *Structure and Functions of the Flowering Plant*† (3) Yocum

The typical plant as a working mechanism, with the emphasis on the general biological significance of plant physiology. Material fee, \$4.50. Lecture (2 hours); laboratory (2 hours)—morning, afternoon, and evening sections. (Also offered 1950 summer term.)

Botany 1x—same as Botany 1, but offered winter term. Morning and afternoon sections.

#### 2 *Survey of the Plant Kingdom* (3) Yocum

Study of the different kinds of plants, with emphasis on the evolution of the plant kingdom; practice in identifying flowering plants. Material fee, \$4.50. Lecture (2 hours); laboratory (2 hours)—morning, afternoon, and evening sections. (Also offered 1950 summer term.)

### SECOND GROUP

#### 105 *Field Botany* (3)

Field trips to neighboring localities of botanical interest, with classroom study. Prerequisite: Botany 1 and 2 or Biology 1-2. Lecture (2 hours); laboratory (4 hours); field trips (3 hours). 1951 and alternate summer terms.

#### 107 *Algae, Fungi, and Mosses* (3)

Adams

Field and laboratory study of the habitat, structure, and identification of representative local forms of algae, fungi, and mosses. Prerequisite: Botany 1 and 2 or Biology 1-2.

Summer term 1950.

#### 109 *Plant Morphology* (3)

Adams

Survey of structure of root, stem, leaf, and flower of seed plants; followed by the application to several of the economically important families. Prerequisite: Botany 1 and 2 or Biology 1-2. Lecture (2 hours); laboratory (2 hours). 1950-51 and alternate years, morning.

#### 116 *Plant Growth* (3)

Yocum

The functions of plants with special emphasis on the practical prob-

\* See also the departments of Biology and Zoology, pages 172-73 and 320-22.

† Before completing registration for Botany 1, each student must obtain from the representative of the Department an assignment to a laboratory section.



lems of growing and of caring for plants. Prerequisite: Botany 1 and 2 or Biology 1-2. Lecture (2 hours); laboratory (2 hours). 1950-51 and alternate years, morning.

125-26 *Plant Taxonomy* (3-3)

Smith

A study of the characteristics, phylogeny, and economics of selected families of the flowering plants. Field collection and identification. Prerequisite: Botany 1 and 2 or Biology 1-2. Material fee, \$4.50. Lecture (1 hour); laboratory and field (4 hours). 1951-52 and alternate years. Evening.

131-32 *Mycology* (3-3)

Diehl

Lecture (1 hour); laboratory (4 hours). 1950-51 and alternate years, evening.

133-34 *Plant Pathology* (3-3)

Diehl

Material fee, \$6 a term. 1951-52 and alternate years, evening.

135-36 *Plant Physiology* (3-3)

Yocum

Fall term: mineral and water relations of plants; winter term: organic syntheses and growth. Prerequisite: Chemistry 11-12. Material fee, \$6 a term. 1951-52 and alternate years, evening.

138 *Growth Regulators* (3)

Yocum

Lectures, literature reviews, and laboratory studies of the physiology of growth regulators and their functions in plants and animals. Prerequisite: Botany 1 and 2 or Biology 1-2. Summer term 1950.

141-42 *Plant Ecology* (3-3)

Cantlon

Lecture (2 hours); laboratory (2 hours). 1950-51 and alternate years, evening.

143 *Plant Distribution* (3)

Plant distribution, especially in the United States and Canada; biological relationships of eastern America with eastern Asia and of lands in the Southern Hemisphere, and their bearing on biological and geological history. 1951-52 and alternate years, evening.

144 *Vegetation of the United States* (3)

Seminar on the areas and characteristics of the principal types of vegetation in the United States. 1951-52 and alternate years, evening.

THIRD GROUP

221-22 *Seminar: Taxonomy* (3-3)

(Not offered in 1950-51.)

Smith

235-36 *Seminar: Physiology* (3-3)

1950-51 and alternate years. Time to be arranged.

Yocum

241-42 *Seminar: Ecology* (3-3)

(Not offered in 1950-51.)

295-96 *Research*

Time and credits to be arranged. (Also offered 1950 summer term.)

The Staff

299-300 *Thesis* (3-3)

Time to be arranged. (Also offered 1950 summer term.)

The Staff



## BUSINESS ADMINISTRATION

\*Richard Norman Owens, Ph.D., C.P.A., *Professor of Business Administration*

Harold Griffith Sutton, M.S., *Professor of Finance*

Arlin Rex Johnson, Ph.D., *Professorial Lecturer on Marketing*

James Carlton Dockeray, Ph.D., *Professorial Lecturer in Business Administration*

Montell Ernest Ogdon, Ph.D., *Professorial Lecturer in Business Administration*

Alfred Ernest Lampe, B.S., *Professorial Lecturer on Insurance*

Joe Lee Jessup, M.B.A., *Associate Professor of Business Administration, Acting Executive Officer*

Merle Welshans, A.M., *Assistant Professor of Business Administration*

Gordon Barnewall, M.B.A., *Assistant Professor of Business Administration*

John William Skinner, A.M., *Instructor in Business Administration*

*Minimum requirements for the Bachelor's degree.*—See pages 143 and 144-45.

*Minimum requirements for the Master's degree.*—See pages 147-48 and 149.

### FIRST GROUP

101 *Business Organization and Combination* (3) Skinner  
Simple and interrelated forms of business enterprise and their control by government. Morning and evening sections.

102 *Business Management* (3) Skinner  
The management movement, organization of an enterprise, principles of management and their application to various departments of an enterprise. Morning and evening sections. (Also offered 1950 summer term.)

105 *Personnel Management in Industry* (3) ———  
Organization and work of the personnel department, human relations in business. Morning. (Also offered 1950 summer term.)  
Business Administration 105x—same as Business Administration 105, but offered fall term. Evening.

106x *Problems in Personnel Management* (3)  
Principles of human relations illustrated by cases drawn from business and industry. Prerequisite: Business Administration 105. (Not offered in 1950-51.)

109 *Office Management* (3) Barnewall  
Organization and layout of an office, use of office machines and appliances, planning and execution of work, supervision problems. Evening.

Business Administration 109x—same as Business Administration 109, but offered winter term. Morning.

\* On leave of absence 1950-51.



- 113 *Real Estate* (3) Welshans  
Fundamentals of real estate practice; leasing and property management; valuation, financing, and taxation. Evening.
- 116 *Urban Transportation* (3)  
Local transportation in economic development; regulation, finance, operation, and management of transit services; community planning for streets, highways, parking, and traffic control. Evening.
- 121 *General Insurance* (3) Skinner  
A general course in underlying principles of property, life, marine, and casualty insurance, and the function of insurance in the economic life of a business or individual. Prerequisite: Economics 1-2. Evening.  
Business Administration 121x—same as Business Administration 121, but offered winter term. Morning.
- 123-24 *Property and Casualty Insurance* Lampe  
*I and II* (2-2)  
The principles and practices of property and casualty insurance with emphasis on the economics of insurance, types of carriers, contract provisions, agency and brokerage, and state regulation and supervision. Prerequisite: Business Administration 121. Evening.
- 125-26 *Property and Casualty Insurance* Lampe  
*III and IV* (2-2)  
The principles and practices of Property and Casualty Insurance with emphasis on theory of probability, rates and rating, reserves, financial statements, and investments; loss adjustment and loss prevention. Prerequisite: Business Administration 123-24. Evening.
- 131 *Business Finance* (3) Welshans  
Basic principles involved in the financing of business enterprises. Prerequisite: Accounting 1-2. Morning and evening sections. (Also offered 1950 summer term.)  
Business Administration 131x—same as Business Administration 131, but offered winter term. Evening.
- 136 *Commercial Credit* (3) Welshans  
Types and sources of credit information, credit relationships from the standpoint of the commercial bank and the commercial business enterprise. Prerequisite: Accounting 1-2. Evening. (Also offered 1950 summer term—Business Administration 136, *Business Problems* (3).)
- 138x *Investment* (3) Welshans  
Analysis of factors of investment credit with application to different types of investments, proper selection of investments for various classes of investors, regulation. Prerequisite: Accounting 1-2. Evening.
- 141 *Principles of Marketing* (3)  
A survey of marketing, giving particular attention to consumption, retailing, wholesaling, and sales management; the entire marketing structure and its relation to the total economy. Prerequisite: Economics 1-2. Morning. (Also offered 1950 summer term.)  
Business Administration 141x—same as Business Administration 141, but offered winter term. Evening.



- 142 *Marketing Problems* (3) Barnewall  
Marketing principles applied to specific distribution policy and operating problems of retailers, wholesalers, and manufacturers handling consumer and industrial goods. Prerequisite: Business Administration 141. Morning.
- 145 *Sales Management* (3) Jessup  
Organization of the sales department, sales planning and forecasting, quotas, territories, performance standards, and analysis and control of distribution costs. Prerequisite: Business Administration 141. Morning. (Also offered 1950 summer term.)
- 146 *Sales Management Problems* (3) Jessup  
Problems of marketing executives with respect to planning sales programs, territories, and salesmen's quotas; selection, training, and supervision of sales force. Prerequisite: Business Administration 145. Morning.
- 147 *Advertising* (3) Barnewall  
Advertising as a function of marketing and merchandising; evaluation, purchase, criticism, and control of advertising; uses and limitations of advertising as a tool of management. Morning. (Also offered 1950 summer term.)
- 150 *Principles of Purchasing* (3) Barnewall  
Organization for purchasing, purchasing policies, market relationships, selection of merchandise, purchasing information and records. Evening.
- 151 *Retailing* (3) Barnewall  
Principles and problems in retail merchandising, including markup, inventory valuation, and expense control; service and personnel problems. Evening.
- 158 *Traffic Management* (3)  
Organization and records of traffic department, routing of shipments, services by carriers, rates and charges, relation of shipper to transportation agencies. (Not offered in 1950-51.)
- 175 *Introduction to Foreign Trade* (3) Ogdon  
Terminology, trade usages and practices, conditions essential to successful trading, economic bases of international trade, obstacles to trade, tariffs, impact of governmental controls on private trade. Prerequisite: Economics 1-2. Evening.
- 176 *Exporting and Importing* (3) Ogdon  
Policy and operating questions of foreign trade, financing and documentation of shipments. Prerequisite: Business Administration 175. Evening.
- 178 *Foreign Markets* (3) Barnewall  
Pattern of world trade by countries and commodities, methods of preparing market surveys, selected regional market analyses. Prerequisite: Economics 1-2. Evening.



- 191 *Business Reports and Analyses* (3) Dockeray  
Research in specific business problems and reports for management use. Open to seniors. Morning.  
Business Administration 191x—same as Business Administration 191, but offered winter term. Morning.

- 195 *Controllership* (3) Jessup  
The duties, responsibilities, and place of the controller in a business organization; relations of controller to other departments and regulatory bodies; and the controller's relation to price setting and inventories, depreciation policies, internal auditing, expense control and budgeting, and financial reports to management, stockholders, and employees. Prerequisite: Accounting 1-2. Open to seniors. Morning. (Also offered 1950 summer term.)

- 198 *Problems in Business Management* (3) Jessup  
Principles and methods of management illustrated by cases drawn from business and industry. Prerequisite: Business Administration 102. Open to seniors. Morning.  
Business Administration 198x—same as Business Administration 198, but offered fall term. Morning.

## THIRD GROUP

- 231 *Corporate Financial Problems* (3) Welshans  
Financial practice in promotion, consolidation, and mergers; capital structure adjustments; and reorganization. Evening. (Also offered 1950 summer term.)

- 232 *Seminar in Business Finance* (3) Welshans  
Research in advanced financial problems. Evening.

- 241 *Seminar in Marketing* (3) Barnewall  
Research and reports on marketing problems. Evening.

- 291-92 *Seminar in Business Management* (3-3) Johnson  
Research on various phases of management, including business, industrial, and personnel management. Evening. (Also offered 1950 summer term—Business Administration 291 (3).)

- 296 *Seminar in Controllership* (3) Jessup  
Research on advanced problems of the controller, in all types of business organization and the Federal Government. Evening.

- 297-98 *Business Policy* (3-3) Jessup  
Problems of management are analyzed with the view of developing a practical solution; cases are used to show the problems of personnel in marketing, industrial management, finance, etc. Evening.

- 299-300 *Thesis* (3-3) The Staff  
Time to be arranged. (Also offered 1950 summer term.)



## CHEMISTRY

Colin Mackenzie Mackall, Ph.D., *Professor Emeritus of Chemistry in Residence*

Benjamin Douglass Van Evera, Ph.D., *Professor of Chemistry*

Samuel Nathaniel Wrenn, Ph.D., *Professor of Chemistry*

Charles Rudolph Naeser, Ph.D., *Professor of Chemistry, Executive Officer*

William Bultman Holton, Ph.D., *Professorial Lecturer in Chemistry*

Robert Corbin Vincent, Ph.D., *Associate Professor of Chemistry*

Reuben Esselstyn Wood, Ph.D., *Assistant Professor of Chemistry*

William Frederick Sager, Ph.D., *Assistant Professor of Chemistry*

Daniel Remsen Norton, Ph.D., *Assistant Professor of Chemistry*

James Willard Harkness, B.S., Ed.M., *Assistant Professor of Chemistry*

Gilbert Pierce Haight, Jr., Ph.D., *Assistant Professor of Chemistry*

John Farago, Ph.D., *Lecturer in Chemistry*

Theodore Peter Perros, M.S., *Instructor in Chemistry*

*The Major in Chemistry (Departmental).*—Prerequisite: Chemistry 11-12, 21 and 22; Mathematics 19 and 20; Physics 5, 6, 7, and 8. Required: Chemistry 111-12, 122, 151-52, and 135 or 155 (two credit hours). The work of the junior and senior years must be approved by the Department. The German language is strongly recommended for all majors, and is essential for all students doing graduate work.

*Requirements for the Master's degree.*—In addition to the requirements for the Bachelor's degree: Chemistry 131-32, 193, 211-12, 251-52, 291-92, 299-300, and the program must include at least four credit hours of laboratory courses. A reading knowledge examination in French or German (German preferred) must be passed before the second half of the work is started.

*Registration.*—Before completing registration each student must obtain from the representative of the Department an assignment to lecture, recitation, and laboratory sections.

### FIRST GROUP

#### †3-4 *Survey of Physical Sciences* (4-4)

Haight

Survey of physical science. An introduction to the physical sciences including chemistry, physics, astronomy, and geology with emphasis on analysis of scientific method and its achievements rather than on the mechanics of science. A terminal course for non-science majors. Laboratory fee, \$6 a term. Lecture (3 hours); laboratory (3 hours) —morning and afternoon sections.



†11-12 *General Chemistry* (4-4) Naeser, Harkness, Haight, Perros

Chemistry 11-12 is an elementary course in general chemistry. Prerequisite: one year of high school algebra. Laboratory fee, \$12 a term. Lecture (2 hours); laboratory (4 hours); recitation (1 hour)—morning, afternoon, and evening sections. (Also offered 1950 summer term.)

Chemistry 11x—same as Chemistry 11, but offered winter term. Morning, afternoon, and evening sections.

Chemistry 12x—same as Chemistry 12, but offered fall term. Afternoon and evening sections.

21 *Qualitative Inorganic Analysis* (4) Vincent

Theoretical and practical study of methods of separating and identifying the more common cations and anions using semi-micro techniques. Prerequisite: Chemistry 12. Laboratory fee, \$12. Lecture (2 hours); laboratory (6 hours)—morning, afternoon, and evening sections. (Also offered 1950 summer term.)

Chemistry 21x—same as Chemistry 21, but offered winter term. Lecture—afternoon and evening sections; laboratory—morning, afternoon, and evening sections.

22 *Quantitative Inorganic Analysis I* (4) Norton

Theory and practice of quantitative analysis by typical volumetric and gravimetric procedures. Prerequisite: Chemistry 21. Laboratory fee, \$15. Lecture (2 hours)—morning and evening sections; laboratory (6 hours)—morning, afternoon, and evening sections. (Also offered 1950 summer term.)

SECOND GROUP

†111-12 *Physical Chemistry* (5-5) Wood

Introduction to physical chemistry. Prerequisite: Chemistry 22 and 152; Mathematics 20; Physics 8. Laboratory fee, \$12 a term. Lecture (3 hours)—morning and evening sections; laboratory (6 hours)—afternoon, evening, and Saturday sections.

122x *Quantitative Inorganic Analysis II* (4) Norton

A continuation of Chemistry 22 including the theory and practice of organic reagents, electrochemistry, and colorimetry in the analysis of more complex materials. Prerequisite: Chemistry 22. Laboratory fee, \$15. Lecture (2 hours)—morning and evening sections; laboratory (6 hours)—afternoon and evening sections.

†131-32 *Inorganic Chemistry* (2-2) Naeser

Application of modern chemical theories to inorganic substances and reactions; detailed study, developed from the periodic table, of the descriptive chemistry of the more common elements. Prerequisite: Chemistry 152. Prerequisite or concurrent registration: Chemistry 111-12. 1950-51 and alternate years, morning. 1951-52 and alternate years, evening.



- 135-36 *Inorganic Chemistry: Preparations* (2-2) Naeser  
Application of the technique of inorganic chemistry to the preparation and purification of a list of selected substances. Prerequisite: Chemistry 152. Prerequisite or concurrent registration: Chemistry 111-12. Laboratory fee, \$14 a term. Laboratory (6 hours), afternoon. (Also offered 1950 summer term.)  
Chemistry 135x—same as Chemistry 135, but offered winter term. Afternoon.

- †151-52 *Organic Chemistry* (4-4) Mackall, Sager  
Chemistry of the compounds of carbon. Credit is not given for Chemistry 151 until Chemistry 152 is completed. Prerequisite: Chemistry 21. *Chemistry 151*.—Laboratory fee, \$6. Lecture (3 hours)—morning and evening sections; laboratory (3 hours)—morning, afternoon, and evening sections. *Chemistry 152*.—Laboratory fee, \$12. Lecture (2 hours)—morning and evening sections; laboratory (6 hours)—morning, afternoon, and evening sections. (Also offered 1950 summer term.)

- 155 *Organic Chemistry: Preparations* (2 or 3) Wrenn  
The synthesis of organic compounds and the application of the technique of organic chemistry to the preparation of pure compounds, using larger amounts and greater refinements than in Chemistry 151-52. Prerequisite: Chemistry 22 and 152. Laboratory fee, \$8 a credit hour. Time to be arranged. (Also offered 1950 summer term.)  
Chemistry 155x—same as Chemistry 155, but offered winter term.

- 156 *Qualitative Organic Analysis* (3) Wrenn  
The identification of pure organic compounds, the separation of mixtures, and the identification of their components. Required of all students planning thesis work in the field of Organic Chemistry. Prerequisite: Chemistry 22 and 155. Laboratory fee, \$15. Laboratory (6 hours). Time to be arranged.

- 191X *History of Chemistry* (2) Perros  
The development of chemistry, and the biographies of eminent contributors to the science. Prerequisite: Chemistry 22 and 152. Morning.

- 193 *Chemical Literature* (1) Wrenn  
A general course in chemical literature with reference works and reports. Prerequisite: Chemistry 22 and 152; prerequisite or concurrent registration: Chemistry 111-12. Evening.

#### THIRD GROUP

- 203 *Chemical Kinetics* (2) Wood  
The rates of chemical reaction and the factors influencing them. Prerequisite: Chemistry 112. Offered in 1951-52, evening.

- 211-12 *Advanced Physical Chemistry* (2-2) Van Evera  
Development and application of the principles of thermodynamics and the kinetic theory to chemical problems. Prerequisite: Chemistry 112. 1950-51 and alternate years, morning. 1951-52 and alternate years, evening.



- 216 *Statistical Mechanics* (3) Sager  
An introduction to classical and quantum statistics designed to acquaint the student with the basic principles and application of the method. Prerequisite or concurrent registration: Chemistry 212, or permission of instructor. Offered in 1951-52, evening.
- 221-22 *Advanced Analytical Chemistry* (2 or 3) Norton  
A survey of the theory and application of chemical and physico-chemical methods of analysis. Prerequisite: Chemistry 22 and 122. The lectures may be taken for 2 credits a term without the laboratory work. Laboratory fee, \$8 a term. Lecture (2 hours)—1950-51 and alternate years, evening; 1951-52 and alternate years, morning. Laboratory (3 hours—optional)—time to be arranged.
- 226 *Quantitative Organic Analysis* (3) Vincent  
Micro and semi-micro procedures. Prerequisite: Chemistry 122 and 152; permission of the instructor. Laboratory fee, \$12. Time to be arranged.
- †231-32 *Special Topics in Inorganic Chemistry: the Chemistry of the Less Familiar Elements* (2-2) Holton  
Prerequisite: Chemistry 132 and 152. Evening.
- 233-34 *Radiochemistry* (2-2) Holton  
The preparation, properties, and uses of radioactive isotopes, both natural and artificial. Prerequisite: Chemistry 131-32. Offered in 1951-52, evening.
- 251-52 *Advanced Organic Chemistry* (3-3) Wrenn  
The syntheses, reactions, and properties of carbon compounds; the fundamental theories of organic chemistry. Prerequisite: Chemistry 152; prerequisite or concurrent registration: Chemistry 111-12 and 193. 1950-51 and alternate years, evening. 1951-52 and alternate years, morning.
- 253 *Advanced Synthetic Organic Chemistry* (3) Wrenn  
A critical study of the reactions employed in the synthesis of organic compounds. Prerequisite: Chemistry 251. Time to be arranged.
- 257 *Theoretical Organic Chemistry* (3) Sager  
Prerequisite: Chemistry 252. A survey of modern theories of organic chemistry with emphasis on reaction mechanisms. Offered in 1951-52, evening.
- 258 *Special Topics in Organic Chemistry: Chemistry of Natural Products* (2) Farago  
Prerequisite: Chemistry 251-52. Evening.
- 291-92 *Seminar: Recent Developments in Chemistry* (1-1) The Staff  
Individual investigations of special problems. All students registered for a Master's degree in chemistry are expected to attend this seminar during residence for the degree, and to take part in its programs. Credit for participation in the seminar work may be obtained by reg-



istering for this course during the last two terms of residence; this credit, however, is based upon the seminar work during the entire period of residence. Alternate weeks, evening.

### 295-96 *Research*

The Staff

Research on problems approved by the Staff. Open to qualified students with advanced training. Laboratory fee, \$6 a credit hour. Time and credits to be arranged. (Also offered 1950 summer term.)

### 299-300 *Thesis (3-3)*

The Staff

Laboratory fee, \$15 a term. Time to be arranged. (Also offered 1950 summer term.)



## CIVIL ENGINEERING

- Carl Hugo Walther, B.E., M.C.E., *Professor of Civil Engineering*  
 Bruce Douglas Greenshields, C.E., Ph.D., *Professor of Civil Engineering, Executive Officer*  
 Waldo Edward Smith, B.E., M.S. in C.E., *Professorial Lecturer in Civil Engineering*  
 Raymond Pugh Eyman, C.E., *Associate Professor of Civil Engineering*  
 James Joseph Kerley, Jr., A.B. in C.E., *Assistant Professor of Civil Engineering*  
 Haaren Albert Miklofsky, B.C.E., M.Eng., *Assistant Professor of Civil Engineering*  
 Edgar Stover Walker, B.S. in C.E., *Lecturer in Civil Engineering*  
 Moses Freedman, B.S. in Eng., *Lecturer in Civil Engineering*  
 William Gammon Hayward, B.S. in C.E., *Lecturer in Civil Engineering*  
 Alvin Raymond Schwab, B.S., M.S. in Eng., *Lecturer in Civil Engineering*  
 Asriel Taragin, B.E., *Lecturer in Civil Engineering*  
 Frank Spaulding Borden, B.C.E., *Lecturer in Civil Engineering*  
 Mark Michael Kiley, A.M. in Eng., *Instructor in Civil Engineering*  
 Vincent Harry Hennessy, B.C.E., *Associate in Civil Engineering*

*Minimum requirements for the major.—See pages 112-13.*

### FIRST GROUP

- 2 *Plane Surveying* (3) Eyman and Staff  
 Principles, methods, and instruments used in surveying; with field work. Prerequisite: Trigonometry. Surveying fee, \$8. Lecture (2 hours)—morning, afternoon, and evening sections; field work (3 hours)—morning and afternoon sections.
- 15 *Navigation* (3) Eyman  
 Principles, methods, and instruments used in surface and aerial navigation. Charts, piloting, dead-reckoning, nautical astronomy, position determination. Prerequisite: Trigonometry. (Not offered in 1950-51.)
- 21 *Analytical Mechanics:* Greenshields and Staff  
*Statics* (2)  
 Composition and resolution of forces; axial stresses; centroids; friction. Prerequisite: Physics 6; prerequisite or concurrent registration: Mathematics 20. Morning and evening sections. (Also offered 1950 summer term.)
- 22 *Analytical Mechanics:* Greenshields and Staff  
*Dynamics* (3)  
 Kinematics of a particle; kinetics of a body in translation, rotation, and plane motion; work and energy; impulse and momentum; simple



vibrations. Prerequisite: Civil Engineering 21. Morning and evening sections. (Also offered 1950 summer term.)

- 23 *Higher Surveying* (4) Eyman, Walker  
Elements of geodesy, triangulation, topography, hydrography, and precise and trigonometric leveling, with field work. Prerequisite: Civil Engineering 2. Surveying fee, \$8. Lecture (3 hours)—morning and evening sections; field work (3 hours)—afternoon and Saturday morning sections.

- 25-26 *Engineering Materials* (2-2) The Staff  
Emphasis on properties and uses of nonmetallic materials such as cements, fuels, and plastics; and metallic materials including steel, copper, aluminum, and alloys. Prerequisite or concurrent registration: Chemistry 12. Morning and evening sections.

#### SECOND GROUP

- 123 *Strength of Materials* (3) Kerley, Smith  
Tension, compression, shear, flexure, and torsion; deflection; combined and working stresses. Prerequisites: Civil Engineering 22. Morning and evening sections. (Also offered 1950 summer term.)

- 136 *Hydraulics* (3) Kerley, Smith  
Hydrostatics: flow through pipes and open channels; laminar and turbulent flow. Prerequisite: Civil Engineering 22. Morning and evening sections. (Also offered 1950 summer term.)

- 140 *Materials and Hydraulics Laboratory* (2) Kerley, Hennessy  
Determination of the properties of materials by mechanical tests, and a study of the flow of fluids. Prerequisite: Civil Engineering 123; prerequisite or concurrent registration: Civil Engineering 26 and 136. Laboratory fee, \$6. Laboratory (3 hours)—afternoon and evening sections.

Civil Engineering 140x—same as Civil Engineering 140, but offered fall term. Afternoon and evening sections.

- 141 *Graphic Statics* (3) Kiley, Schwab  
Fundamental principles; analyses of beams; determination of stresses in roof trusses and framed bents. Prerequisite or concurrent registration: Civil Engineering 123. Drafting-room fee, \$1. Lecture (2 hours)—morning and evening sections; drafting room (3 hours)—afternoon and evening sections.

- 142 *Bridge Stresses\** (3) Kiley  
Determination of stresses in modern types of bridge trusses. Prerequisite: Civil Engineering 141. Drafting-room fee, \$1. Lecture (2 hours)—morning; drafting room (3 hours)—afternoon.

- 147-48 *Structural Design* (2-2) Walther, Miklofsky  
Computations and drawings for the design of steel structures. Prerequisite: Civil Engineering 142. Drafting-room fee, \$3 a term. Drafting room (6 hours)—afternoon and evening sections.

\* An additional evening section of 142 will be offered in 1951-52 and alternate years.



- 149-50 *Concrete and Masonry Construction\** (3-3) Miklofsky, Bagdoyan  
Plain concrete, general properties and theory of reinforced concrete, foundations, and retaining walls. Prerequisite: Civil Engineering 25 and 123. Civil Engineering 149, laboratory fee, \$6; Civil Engineering 150, drafting-room fee, \$1. Lecture (2 hours)—morning and evening sections; laboratory (3 hours)—afternoon and evening sections.
- 151-52 *Statically Indeterminate Structures\** (2-2) Walther, Miklofsky  
A study of such structures as continuous spans, rigid frames, and arches by methods of work, slope deflection, and moment distribution. Prerequisite: Civil Engineering 142. Morning and evening sections.
- 154 *Advanced Mechanics of Materials* (3)  
Advanced topics in the mechanics of materials. Stresses at a point, thick cylinders, general bending, torsion, localized stress, and stress concentration. Prerequisite: Civil Engineering 25-26 and 123. 1950-51 and alternate years, evening.
- 164 *Highway Engineering* (3) Greenshields, Taragin  
Highway economics, location, construction, and maintenance. Prerequisite: Civil Engineering 25 and 171. Morning and evening sections.
- 171 *Route Surveying* (3) Eyman, Hayward  
Curves and earthwork, and methods of location as used on railroads and highways; field work; complete highway location. Prerequisite: Civil Engineering 2. Surveying fee, \$8. Lecture (2 hours)—morning and evening sections; field work (3 hours)—afternoon and Saturday morning sections.
- 181-82 *Water Supply and Sewerage* (3-3) Kiley  
Collection, storage, purification, and distribution of water; sewerage systems and treatment of sewage. Prerequisite: Civil Engineering 136; Chemistry 12. Morning and evening sections.
- 187-88 *Engineering Contracts and Specifications* (2-2) Freedman  
Contract essentials, types, and legal principles; analysis and preparation of specifications. Prerequisite or concurrent registration: Civil Engineering 25-26. Evening.
- 189-90 *Civil Engineering Proseminar* (1-1) Greenshields, Eyman  
Morning and afternoon sections.

\* The evening sections of 149-50 and 151-52 will be offered in 1950-51 and alternate years.



## CLASSICAL LANGUAGES AND LITERATURES

John Francis Latimer, Ph.D., *Associate Professor of Classical Languages and Literatures, Executive Officer*

### FIRST GROUP

†1-2 *First-year Latin* (3-3) Latimer  
Essentials of Latin grammar, prose composition, easy reading selections. Morning.

†3-4 *Second-year Latin* (3-3) Latimer  
Rapid review of Latin grammar, prose composition, wide variety of selections for rapid reading. Evening.

†13-14 *Second-year Greek* (3-3) Latimer  
Rapid review of Greek grammar, prose composition, wide variety of selections for rapid reading. Morning.

### IN ENGLISH TRANSLATION

71-72 *Greek and Roman Backgrounds in Literature* Latimer  
(3-3)  
A survey in English translation of the principal Greek and Roman authors and their literary influence. Evening.

### SECOND GROUP

III-12 *Selected Roman Authors* (3-3) Latimer  
According to the needs of the class, certain Roman authors will be selected for study each term. Course may be repeated for credit. Morning.



## DERMATOLOGY AND SYPHILOLOGY

Harry Ford Anderson, M.D., *Professor of Dermatology and Syphilology, Executive Officer*

George William Creswell, A.B., M.D., *Assistant Clinical Professor of Dermatology and Syphilology*

Hayden Kirby-Smith, B.S., M.D., *Assistant Clinical Professor of Dermatology and Syphilology*

Theodore Claremont Chen Fong, M.D., *Associate in Dermatology and Syphilology*

James Quincy Gant, Jr., M.S., M.D., *Associate in Dermatology and Syphilology*

Wendell Melvin Willett, M.D., *Associate in Dermatology and Syphilology*

Reuben Goodman, M.D., *Clinical Instructor in Dermatology and Syphilology*

313-14 *Dermatology and Syphilology* The Staff  
Lectures on diseases of the skin and syphilis. One hour a week.

316 *Neurosyphilis* Fong  
Lectures, clinical demonstrations, and practical diagnostic and therapeutic procedures. One hour a week for eight weeks.

317-18 *Clinic* The Staff  
Case demonstrations, diagnosis, and treatment of skin diseases and syphilis. Three hours a week. Gallinger Hospital.

407-8 *Clinic* The Staff  
Dermatology and syphilology in infants and children. Childrens Hospital. Two hours a week.

409-10 *Clinic* The Staff  
Clinical demonstration, diseases of the skin. Two hours a week. Emergency Hospital.

411-12 *Clinic* The Staff  
Clinical demonstrations, diseases of the skin, and diagnosis and therapy of syphilis. Two hours a week. University Hospital.



## ECONOMICS

Arthur Edward Burns, Ph.D., *Professor of Economics*

\*Donald Stevenson Watson, Ph.D., *Professor of Economics, Executive Officer*

James Christopher Corliss, A.M., *Adjunct Professor of Inter-American Economics*

Gerhard Colm, Dr. rer. pol., *Professorial Lecturer in Economics*

Ralph Aubrey Young, M.B.A., Ph.D., *Professorial Lecturer in Economics*

Edward Campion Acheson, Ph.D., *Associate Professor of Finance*

Paul Edward Hanchett, Ph.D., *Assistant Professor of Economics*

Albert Raymond Miller, Jr., A.M., *Assistant Professor of Economics*

Edwin Medbery Fitch, Ph.D., *Lecturer in Economics*

Grover William Ensley, M.B.A., Ph.D., *Lecturer in Economics*

George Jaszi, Ph.D., *Lecturer in Economics*

Wilson Emerson Schmidt, A.M., *Instructor in Economics*

*The major in Economics (Departmental).*—Prerequisite: Economics 1-2. Required: (1) Economics 101 and three additional credit hours in economic theory (courses numbered 100-109); (2) six credit hours in each of three of the five following groups: finance (courses numbered 120-29), labor (courses numbered 140-49), government and economic policy (courses numbered 160-69), public utilities and transportation (courses numbered 170-79), and international economics (courses numbered 180-92); (3) Statistics 111-12, and nine credit hours of other second-group courses selected from the following departments—Accounting, Business Administration, History, Philosophy, Political Science, Sociology, and Statistics.

*The major in Latin American Civilization and Culture (Field-of-Study).*—The major, administered under the field-of-study plan, includes the political and social history, the economic development, the governmental structure and international relations, the principal literary works and writers, and a reasonable acquaintance with the spoken language of the Latin American republics. The Department of Economics provides a proseminar (Economics 193-94) intended to assist the student in preparing himself for the major examination. For further details, see the pamphlet, which is available in the Office of the Dean of Columbian College.

### FIRST GROUP

#### 1-2 *Introductory Economics*‡ (3-3)

The Staff

Survey of the major economic institutions and economic problems in contemporary society. Economics 1 is prerequisite to Economics 2. Morning, afternoon, and evening sections. (Also offered 1950 summer term.)

\* On sabbatical leave winter term 1950-51.

‡ Economics 1-2 is prerequisite to all other courses in economics.



Economics 1x—same as Economics 1, but offered winter term. Morning and evening sections.

Economics 2x—same as Economics 2, but offered fall term. Morning and evening sections.

### SECOND GROUP \*

- 101 *Economic Theory* (3) The Staff  
Introduction to formal economic theory; advanced analysis of demand, supply, and price relations. Morning and evening sections. (Also offered 1950 summer term.)  
Economics 101x—same as Economics 101, but offered winter term. Morning and evening sections.
- 102 *History of Economic Thought* (3) Burns  
Economic doctrines since the mercantilist writers; the history of the major schools of thought; influence of changing problems on theory. Morning. (Also offered 1950 summer term.)
- 105 *Business Cycles* (3) Burns, Miller  
Analysis of strategic factors in economic instability and economic retardation; survey of recent business-cycle theories. Morning.  
Economics 105x—same as Economics 105, but offered winter term. Evening.
- 108 *The National Income* (3) Miller  
The measurement, composition, and determinants of the national income. Morning.
- 109 *Distribution Theory and Welfare Economics* (3) Miller  
Advanced economic theory with emphasis on income distribution and the literature on welfare economics. Prerequisite: Economics 101 or the equivalent.  
Summer term 1950.
- 121 *Money and Banking* (3) Acheson  
Theory of money, credit, and banking; commercial banking and the Federal Reserve system; other financial institutions; international aspects of money; current financial problems. Morning and evening sections. (Also offered 1950 summer term.)  
Economics 121x—same as Economics 121, but offered winter term. Evening.
- 122 *The Supply and Control of Money* (3) Acheson  
Factors determining the effect of bank policy and government finance on the volume of purchasing power and level of prices; historical development; current practice and problems. Prerequisite: Economics 121. Morning.
- 123 *Monetary Theory* (3) Acheson  
Principal contemporary theories; background of recent monetary policy. Prerequisite: Economics 121. 1951-52 and alternate years, evening.

\* Economics 1-2 is prerequisite to all other courses in economics.



- 126 *Foreign Exchange and International Finance* (3) Acheson  
Theory and practice of foreign exchanges; the gold standard and international finance during the nineteenth century; war and postwar exchange problems. Prerequisite: Economics 121. Evening.
- 141 *Labor Economics* (3) Miller  
Labor problems: wages, hours, and working conditions; growth of labor organizations; types of unions; union tactics and programs. Morning and evening sections.
- 142 *Government and Labor Problems* (3) Miller  
Labor legislation; labor and the courts; federal regulation of capital-labor relations; the work of federal labor boards. Morning and evening sections.
- 144 *Labor Movements* (3)  
Survey of growth and types of labor unions, development and problems of collective bargaining.  
Summer term 1950.
- 146 *Economic Security and Social Insurance* (3) Hanchett  
Economic and social problems of unemployment; analysis of the federal social security program; survey of the Beveridge and other plans.  
Summer term 1950.
- 161-62 *Public Finance and Taxation* (3-3) Hanchett  
General survey of government expenditures, sources and methods of taxation, economic effects of expenditures and taxes, and of government debt policies. Late afternoon.
- 165 *Government Control of Economic Activity* (3) Watson  
Changing role of government in promoting and regulating economic activity; types and spheres of control. Morning.
- 166 *Comparative Systems of Economic Reform* (3) Watson  
Critical analysis of the major theories of economic and social reform, with special attention to their origins and backgrounds.  
Summer term 1950.
- 167 *Economics of Planning* (3) Watson  
Analytical comparison of economic systems coordinated by market price with those coordinated by central authority. (Not offered in 1950-51.)
- 172 *Public Utilities* (3)  
The economics of public utilities with emphasis on regulation, valuation, and rate-making. Evening.
- 175 *Railroad Transportation* (3) Kennedy  
Railroad history, organization, rate-making theory and practice, with emphasis on the work of the Interstate Commerce Commission. Morning.



- 176 *Motor, Air, and Water Transportation* (3) Kennedy  
History, organization, competition, rates, and regulation of motor, air, and water carriers; coordination of transportation. Morning.
- 181-82 *International Economics* (3-3) Schmidt  
Survey of world economics; basic factors; resource controls; international trade; industrial, financial, and monetary processes and policies; relation to internal economic systems. Afternoon and evening sections. (Also offered 1950 summer term.)
- 183 *Tariffs and Commercial Treaties* (3) \_\_\_\_\_  
Origins and types of modern foreign commercial policy, in the light of evolving doctrines; forms and economic effects of tariffs and other measures, and of international commercial accords. Evening.
- 184 *The New Foreign Economic Policies* (3) \_\_\_\_\_  
The new types of foreign trade and exchange controls and agreements; causes, growth, and techniques. Evening.
- 185-86 *Economic History and Problems of South America* (3-3) Corliss  
Economic development of South America (excluding Colombia and Venezuela). Particular emphasis on economic developments and problems since the First World War. 1950-51 and alternate years, evening.
- 187-88 *Economic History and Problems of the Caribbean Area* (3-3) Corliss  
Economic developments of Colombia, Venezuela, Mexico, and the Central American and West Indian republics. Particular emphasis on economic developments and problems since the First World War. 1951-52 and alternate years, evening.
- 193-94 *Proseminar in Latin American Civilization and Culture* (3-3) Corliss  
Coordination and review course. Open only to candidates majoring in Latin American Civilization and Culture. Time to be arranged.
- 198 *Readings in Economics* (3) Burns, Watson  
Comprehensive survey of economics. Open only to students whose major is economics and who are in their last term. Time to be arranged.  
Economics 198x—same as Economics 198, but offered fall term. Time to be arranged.

## THIRD GROUP

- 201-2 *History and Literature of Economic Thought* (3-3) Burns  
Critical analysis and interpretation of the development and the literature of economic thought; origins and problems of the major types of theory; their relation to present problems and policies. Evening.



- 203 *Partial Equilibrium Theory* (3) Watson  
The contributions of Marshall, Chamberlin, and Robinson. Evening.
- 204 *Contemporary Economic Theory* (3)  
Intensive analysis of Hicks' *Value and Capital*. Prerequisite: Economics 201-2. Evening.
- 205 *Business Cycle Theory* (3) Watson  
The contributions of the pre-Keynesian writers.  
Summer term 1950.
- 206x *Theory of Employment and Income* (3) Miller  
Analysis of several types of current business-cycle theories; recent works of Keynes and others. Evening.
- 208 *The National Income* (3) Jaszi  
The theory of economic aggregates; policy aspects of national income. Evening.
- 209 *Readings in the History of Economic Thought* (3) Burns  
Research in special problems in the history of economics. Prerequisite: Economics 201-2. Evening.
- 210 *Methodology in Economics* (3) Burns  
The nature of economic theory; relations of economics to philosophy and other disciplines. (Not offered in 1950-51.)
- 211 *Readings in Advanced Economics* (3) The Staff  
Integration and coordination of advanced economic theories. Evening.
- 214 *Quantitative Economics* (3) Hanchett  
Introduction to mathematical economic theories.  
Summer term 1950.
- 223 *Monetary Policy and Problems* (3) Young  
The money system in its relation to national income and to the national debt. Policy issues. Evening.
- 224 *Central Banking* (3) Young  
The Federal Reserve and other central banking systems. Evening.
- 225 *Economic Stabilization Policies* (3) Burns  
Appraisal of economic policies directed towards the stabilization of the economy, with special attention to the problem of full employment.  
Summer term 1950.
- 241 *Labor Economics* (3) Fitch  
Analysis of labor problems, with special reference to labor organizations; intensive study of federal regulation and participation in capital-labor relations. Evening.
- 244 *Labor Relations* (3) Fitch  
The collective bargaining contract and the elements comprising it; analysis of the policies of labor and of management. Evening.



- 260 *Theory of Public Finance* (3) Hanchett  
Survey of the literature on public finance, with special attention to controversial issues.  
Summer term 1950.
- 261-62 *Public Finance and Fiscal Policy* (3-3) Colm  
Survey of the major contributions to the theory and doctrines of public finance. Special problems: deficit financing; current tax problems; and federal, state, and local financial relationships. Evening.
- 265 *Theory of Economic Policy* (3) Ensley  
The nature, forms, methods, and objectives of economic policy; the relation of economic theory to economic policy. Evening.
- 266 *Problems of Governmental Economic Policy* (3) Ensley  
The execution of economic policies as they are affected by the processes of government. Evening.
- 281 *Theories of International Economics* (3) \_\_\_\_\_  
Examination and critique of mercantilism, classical international equilibrium analysis, and other schools of world economic thought. Evening.
- 282 *The Balance of International Payments* (3) \_\_\_\_\_  
Structure and theories of the balance; money and foreign exchange and interrelationships of trade, gold flows, capital movements, etc.; the balance and foreign economic policy formulation. Evening.
- 285-86 *Public and Private Finance in Latin America* Corliss  
(3-3)  
Corporate finance, banking, and capital movements in Latin America; fiscal problems; public debt, deficit financing, taxation, public expenditures; foreign-exchange controls and problems. A reading knowledge of Spanish or Portuguese is required. Evening.
- 287-88 *Economic Problems of Latin America* (3-3) Corliss  
Foreign trade and foreign commercial policy; growth of industry and agriculture; government control of economic activity; recent economic trends and problems. (Not offered in 1950-51.)
- 289 *Problems in International Financial Policy* Acheson  
(3)  
Analysis of the issues confronting the International Monetary Fund and the International Bank for Reconstruction and Development. Evening.
- 290 *Problems in International Economic Policy* Acheson  
(3)  
Exchange stabilization; issues confronting the International Trade Organization. Evening.
- 297-98 *Thesis* (School of Government majors) (3-3) The Staff
- 299-300 *Thesis* (3-3) The Staff



## EDUCATION

James Harold Fox, A.M., Ed.D., *Professor of Education, Executive Officer*

Burnice Herman Jarman, A.M., Ed.D., *Professor of Education*

William Cullen French, Ph.D., *Professor Emeritus of Education in Residence*

Meredith Chester Wilson, B.S., *Adjunct Professor of Education*

Ruth Coyner Little, Ph.D., *Professorial Lecturer in Education*

\*Ray LaForest Hamon, Ph.D., *Professorial Lecturer in Education*

Charles Edward Bish, A.M., Ed.D., *Professorial Lecturer in Education*

Henry Fred Alves, A.M., *Professorial Lecturer in Education*

Blake Smith Root, A.M., Ed.D., *Associate Professor of Education*

Ralph Windsor Ruffner, A.M., Ed.D., *Associate Professor of Education*

Jane Frost Hilder, A.M., *Lecturer in Education, Director of Reading Clinic*

\*Madaline Kinter Remmlein, Ph.D., J.D., *Lecturer in Education*

LuVerne Crabtree Walker, A.M., *Lecturer in Education*

Helen Barton Goodwin, A.M., *Lecturer in Education*

Camilla Painter Luecke, A.M., *Lecturer in Education*

Florence Mary Lumsden, A.M., Ed.D., *Lecturer in Education*

William Samuel Rumbough, A.M., Ed.D., *Lecturer in Education*

Cannon Chiles Hearne, A.M., *Lecturer in Education*

Juanita May Winn, A.M., *Lecturer in Education*

Joseph Bueol Johnson, A.M., Ed.D., *Lecturer in Education*

James Herrick Hall, A.M., *Lecturer in Education*

John Frederick Brougher, A.M., Ed.D., *Lecturer in Education*

Howard Odin Johnson, A.M., Ed.D., *Lecturer in Education*

Marie Marguerite Neeb, A.M., *Clinician, Reading Clinic*

### CONSULTANT IN RESEARCH

Wesley Earl Armstrong, Ed.D., *Chief for Teacher Education, U. S. Office of Education*

### FIELD SERVICE COORDINATORS

William Wallace Rich, A.M., *Supervisor of Secondary Schools, Arlington County, Virginia*

Helen King Finlay, A.M., *Assistant Principal, Washington-Lee High School, Arlington, Virginia*

*Minimum requirements for the degrees.—See pages 131 and 135-38.*

\* On leave of absence 1950-51.



A *Reading Clinic*

Hilder and Staff

Diagnosis of reading difficulties; individual or group lessons without academic credit for alexia, dyslexia, and remedial cases. Fee: for diagnosis, \$20; for individual lesson, \$3; for group lesson, \$2.50.

## SECOND GROUP

107 *Introduction to Learning and Teaching* (2)

Indorf

Child growth and development, nature of learning and teaching, principles of teaching. For liberal arts graduates who have had no equivalent professional training.

Summer term 1950.

108 *The Elementary School* (3)

Purposes, organization, program of studies, and general problems of the elementary school. For liberal arts graduates and graduates of secondary school curricula.

Summer term 1950.

109-10 *Learning and Teaching* (3-3)

Ruffner

For the general student as well as the prospective teacher. Fall term: nature of learning and teaching approached through the study of actual classroom situations. Winter term: the principles and practices of good teaching. Lecture (2 hours)—morning and evening sections; field work (2 hours)—to be arranged. (Also offered 1950 summer term—Ruffner, Hall.)

111-12 *Elementary School Curriculum* (3-3)

Fall term: language skills—reading, writing, spelling, speaking, listening. Winter term: Natural and social sciences, arithmetic. Lecture (2 hours)—late afternoon; field work (2 hours)—to be arranged. (Also offered 1950 summer term.)

113 *Elementary School Art* (3)

Materials and methods. (Not offered in 1950-51.)

114 *Elementary School Music* (3)

Materials and Methods. (Not offered in 1950-51.)

115 *Elementary School Classroom Procedures* (3)

Barnes, Winn

Determination of children's needs and interests, providing for individual differences, evaluation of classroom practices.

Summer term 1950.

121-22 *Society and the School* (3-3)

Jarman, Hall,

For the general student as well as the prospective teacher. Fall term: the local, national, and international roles of education; cooperation of the school with other community agencies. Winter term: organization and operation of schools; principles and functions. Lecture (2 hours)—morning and evening sections; field work (2 hours)—to be arranged. (Also offered 1950 summer term.)

123-24 *Reading Problems* (3-3)

Hilder

A clinical approach to reading difficulties on elementary and secondary school levels. Saturday morning.



- 125 *Corrective Procedures in Reading* (3) Hilder  
Study of levels, needs, materials, and corrective methods. Demonstrations and observations with clinic cases.  
Summer term 1950.
- 127 *Children's Literature* (3) Walker  
Exploring and evaluating the newer books for children and the children's classics, understanding the contribution of literature in child development, appreciating children's original expressions. Lecture (2 hours)—evening; field work (2 hours)—to be arranged.
- 131 *Common Teaching Skills* (3) Root, Hall  
Course, unit, and lesson planning; homeroom procedures; discipline; clerical routines; activity sponsorship; committee procedures; public relations duties. Afternoon and evening sections.
- †133-34 *Observation and Practice Teaching* (3-3) Root, Hall  
Education 134, practice-teaching fee, \$8 a credit hour. Admission by permission of the instructor. Time to be arranged individually. (Also offered 1950 summer term.)

## SPECIAL METHODS COURSES

To be elected in the senior year after substantial preparation in the teaching fields concerned. Course requirements and hours of credit vary with license requirements. Practices of successful teachers are studied and actual teaching content as found in current texts and courses of study is reviewed.

- 136 *Teaching English* (2 to 4) Lumsden  
Lecture (2 hours)—evening; field work (2 hours)—to be arranged.
- 138 *Teaching Social Studies* (2 to 4) Root  
Lecture (2 hours)—evening; field work (2 hours)—to be arranged.
- 140 *Teaching Mathematics* (2)  
(Not offered in 1950-51.)
- 141-42 *Teaching Art* (3-3) Goodwin  
Saturday Morning.
- 144 *Teaching Science* (2 to 4) Rumbough  
Lecture (2 hours)—late afternoon; field work (2 hours)—to be arranged.
- 146 *Teaching Foreign Languages* (2 to 4) Doyle, Keating  
Late afternoon.
- 148 *Teaching Home Economics* (2) Kirkpatrick  
Time to be arranged.
- 150 *Teaching Secretarial Studies* (2) Veon  
Time to be arranged.

## THIRD GROUP

- 205-6 *The Curriculum* (3-3)  
General principles and practices of curricular development, modern trends and procedures of improvement, group consideration of student problems. Saturday morning.



- 209-10 *Child Growth and Development* (3-3)  
Basic factors in human growth and development and their relation to learning and teaching. Related practical experience in studying children; class analyses of procedures and results. Evening. (Also offered 1950 summer term—Education 209 (3).)
- 211X *Evaluation in Education* (3) Ruffner  
Nature, functions, and techniques. Evening. (Also offered 1950 summer term.)
- 213-14 *History of Education* (3-3) Jarman  
Fall term: the European backgrounds of American education. Winter term: the evolution of the American school system. Evening.
- 215-16 *Seminar: Great Teachers in American Education* (3-3) French  
A study of great teachers from the colonial period to the present. An attempt will be made to find out the qualities and characteristics that have made these teachers great. Evening.
- 217-18 *Contemporary Problems in Education* (3-3) Jarman  
Fall term: designed to help students formulate a personal philosophy of education. Winter term: a study of the forces that shape the policies and offerings of the school. Evening. (Also offered 1950 summer term—Education 218 (3).)
- 219 *Elementary Education* (3)  
Review of recent literature and practices; particular attention to *Education for All American Children*, the recent report of the Educational Policies Commission.  
Summer term 1950.
- 221-22 *Seminar: Early Childhood Education* (3-3) Little  
Fall term: home backgrounds, nursery school, and kindergarten situations. Winter term: primary grades. Evening.
- 225-26 *Seminar: Elementary Education in the Intermediate Grades* (3-3) Little  
A comprehensive study of the major problems of the intermediate grades. (Not offered in 1950-51.)
- 227-28 *Elementary Education* (3-3)  
Fall term: discussion of fundamental issues in the light of their historical development, parallel situations in other countries, and current proposed solutions. Winter term: relationships of developments in each instructional area to the fundamental issues. Saturday morning.
- 230 *Administration of Elementary Education* (3)  
The principal as a school and community leader. Problems of supervision, course of study development, parent relations. Evening.
- 231 *Secondary School Classroom Procedures* (3) Bish, Root  
Survey of current classroom practices with particular attention to teaching aids; reviews of recent literature. Evening. (Also offered 1950 summer term.)



- 233 *Audio-visual Education* (3) Luecke  
Selection and use of audio-visual aids, management of materials and equipment. Material fee, \$5. Lecture (2 hours), laboratory (2 hours)—Saturday morning. (Also offered 1950 summer term—Johnson.)  
Education 233x—same as Education 233, but offered winter term. Saturday morning.
- 247-48 *Vocational Education* (3-3) Ruffner, Johnson  
Major issues, problems, and trends. Evening.
- 251 *Guidance in Secondary Schools* (3) Brougher  
Scope; needs; organization of the program; services to students, the instructional staff, and the administration; personnel needed for the program. Evening. (Also offered 1950 summer term.)
- 254 *The Junior High School* (3) Bish, Root  
Purposes, organization, core programs, guidance, developing courses of study, extra classroom activities. Evening. (Also offered 1950 summer term.)
- 255-56 *Secondary Education* (3-3) Bish, Root  
Fall term: review of recent literature and practices; particular attention to *Education for All American Youth*, the recent report of the Educational Policies Commission, and *General Education in a Free Society*, Harvard Committee. Winter term: current problems in each of the subject-matter fields. Saturday morning. (Also offered 1950 summer term.)
- 259-60 *Secondary School Management* (3-3) Fox, Johnson  
Management planning, execution, and control; criteria of good management; construction of the master schedule; leadership problems incident to the development of new policies and programs. Saturday morning.
- 263-64 *Employee Training* (3-3) Root  
Organization and administration of employee-training programs in accordance with operating needs; orientation, supervisory, and skills training; coordination of training with other personnel functions; evaluation of training. Field work is required. Evening.
- 271 *The American School System* (3) Fox  
Organization of public education, sources of school revenue, influences of national and state agencies, local administrative units, the chief legal controls, criteria of building administration, responsibilities of teachers. Evening.
- 272 *The Teacher and School Supervision* (3) Fox  
Nature, organization, human relationships, and techniques. Evening. (Also offered 1950 summer term.)
- 273-74 *Administration of a School System* (3-3) Alves, —  
A comprehensive survey of the management problems of a beginning superintendent; does not anticipate previous experience as a superintendent. Evening.



- 275 *School Finance* (3) Alves  
Educational financial theory, practice, and control, including methods of financing. (Not offered in 1950-51.)
- 276 *Seminar: Public Relations in School Administration* (3) Fox  
Purposes, gathering materials, disseminating agencies, publicity media, public participation in policy-making. (Not offered in 1950-51.)
- 278 *School Law* (3) Remmlein  
Sources and scope of school law; legal rights and responsibilities of teachers, pupils, and taxpayers. Other legal problems of major interest to the group. (Not offered in 1950-51.)
- 279-80 *Adult Education* (3-3) Ruffner  
Fall term: nature, extent, and organization of programs in adult education. Winter term: interest, needs, and capacities of adult learners; techniques employed in motivating and directing learning activities. Evening. (Also offered 1950 summer term—Education 279 (3).)
- 285 *Extra-classroom Activities* (3) Root  
Home-room functions, student self-government, clubs, assemblies, school publications.  
Summer term 1950.
- 287-88 *Clinical Study of Reading Problems* (3-3) Hilder  
For advanced students. Diagnostic work under supervision in the Reading Clinic. Admission by permission of the instructor. Saturday morning.
- 291 *Planning the School Plant* (3) Hamon  
Selection of sites; evaluation of existing buildings; utilization of present facilities; adaptation to curricular needs; building, operation, and maintenance problems. (Not offered in 1950-51.)
- 293-94 *Research* (3-3) The Staff  
Individual research under the guidance of a member of the staff. Program and conferences arranged with an instructor.
- 295 *Educational Research Methods and Procedures* (3) Fox  
Required of all Master of Arts candidates following Plan 2. Knowledge of elementary statistics required. Evening. (Also offered 1950 summer term.)  
Education 295x—same as Education 295, but offered winter term. Late afternoon.
- 297 *Reading in Education* (1) The Staff  
To assist those preparing for the comprehensive examination. No credit toward degree requirements. Late afternoon. (Also offered 1950 summer term.)  
Education 297x—same as Education 297, but offered winter term. Late afternoon.
- 299-300 *Thesis* (3-3) The Staff  
Required of all Master of Arts candidates following Plan 1. Time to be arranged. (Also offered 1950 summer term.)



## ELECTRICAL ENGINEERING

- Norman Bruce Ames, M.S., E.E., LL.B., *Professor of Electrical Engineering, Executive Officer*  
 Forest Klaire Harris, Ph.D., *Professorial Lecturer in Electrical Engineering*  
 William Sutton Carley, M.S. in E.E., *Associate Professor of Electrical Engineering*  
 William Thomas Dickinson, M.S. in E.E., *Assistant Professor of Electrical Engineering*  
 Jerome Strauss Antel, Jr., B.S. in E.E., *Assistant Professor of Electrical Engineering*  
 Thomas Alvin O'Halloran, B.E.E., *Lecturer in Electrical Engineering*  
 Dwight Edward Shytle, *Lecturer in Electrical Engineering*  
 Malcolm Richardson Moore, B.E.E., *Lecturer in Electrical Engineering*  
 Ralph Brady, B.S. in E.E., *Lecturer in Electrical Engineering*  
 Jerome Addison Lee, B.S., *Lecturer in Electrical Engineering*  
 George Pida, B.E.E., *Associate in Electrical Engineering*

*Minimum requirements for the major.—See pages 111-12, 114-15.*

### FIRST GROUP

- 9-10 *Elements of Electrical Engineering* (3-3) Ames, Lee  
 Electrical Engineering 9: magnetic and electric circuits; direct-current instruments and machines; Electrical Engineering 10: alternating-current circuits, instruments, and machines. Prerequisite: Physics 7. Prerequisite or concurrent registration: Mathematics 20. Morning and evening sections. (Also offered 1950 summer term.)
- 13-14 *Electrical Laboratory* (2-2) The Staff  
 For the student not majoring in electrical engineering. Experiments in direct- and alternating-current circuits, instruments and machinery. Prerequisite: Electrical Engineering 10. Laboratory fee, \$6 a term. Laboratory (3 hours)—afternoon and evening sections. (Also offered 1950 summer term.)

### SECOND GROUP

- 105-6 *Direct-Current Laboratory* (2-2) The Staff  
 For the student majoring in electrical engineering. A course in measurements and direct-current dynamo laboratory. Prerequisite: Electrical Engineering 9-10. Laboratory fee, \$6 a term. Laboratory (3 hours)—afternoon and evening sections. (Also offered 1950 summer term.)
- 107 *Alternating-Current Circuits* (3) Dickinson  
 Alternating-current-circuit theory. Extensive consideration is given



to harmonic analysis and to the study of harmonics in both single-phase and polyphase circuits. Prerequisite: Electrical Engineering 10. Morning and evening sections.

- 108 *Alternating-Current Machinery* (3) Antel  
Synchronous generators and motors, transformers, and mercury arc rectifiers. Prerequisite: Electrical Engineering 107. Morning and evening sections.

- 109 *Alternating-Current Machinery* (3) Antel  
A continuation of Electrical Engineering 108. Converters, induction motors, single-phase motors. Prerequisite: Electrical Engineering 108. Afternoon and evening sections.

- 111-12 *Electrical Measurements* (2-2) Antel, Harris  
Theory of direct-current and alternating-current instruments, bridges, and meters. Prerequisite or concurrent registration: Electrical Engineering 107. Morning and evening sections.

- 118 *Advanced Network Theory I* (3) Carley, Dickinson  
Theory of resonance, linear networks, transmission lines, and filters. Prerequisite: Electrical Engineering 107. Morning and evening sections.

- 119 *Advanced Network Theory II* (3) Carley  
Theory of transmission at UHF and VHF frequencies including Maxwell's equations, wave guides, and methods of power generation at these frequencies. Prerequisite: Electrical Engineering 118 and Physics 132. Prerequisite or concurrent registration: Electrical Engineering 142; Physics 133. Morning and evening sections.

- 120 *Advanced Network Laboratory I* (2) The Staff  
A laboratory course associated with Electrical Engineering 118. Laboratory fee, \$6. Laboratory (3 hours)—morning and evening sections.

- 121 *Advanced Network Laboratory II* (2) The Staff  
A laboratory course associated with Electrical Engineering 119. Prerequisite: Electrical Engineering 120. Laboratory fee, \$6. Laboratory (3 hours)—afternoon and evening sections.

- 125-26 *Principles of Electric Power Transmission* (2-2)

Mechanical and electrical characteristics of transmission lines, approximate and rigorous solutions by means of hyperbolic functions, steady-state and elementary transient considerations, the more important phases of distribution of electrical energy. Prerequisite: Electrical Engineering 107. Evening.

- 133-34 *Alternating-Current Laboratory* (2-2) The Staff  
A continuation of Electrical Engineering 105-6, with experiments on alternating-current circuits, instruments, and machinery. Prerequisite: Electrical Engineering 106 and 108. Laboratory fee, \$6 a term. Laboratory (3 hours)—afternoon and evening sections. (Also offered 1950 summer term.)



- 137 *Electric Traction* (2) Ames  
Theory and practice of modern direct- and alternating-current railways. Prerequisite: Electrical Engineering 10. Evening.
- 138 *Industrial Electrical Power Applications* (2) \_\_\_\_\_  
The characteristics of the various types of electrical motors and other power appliances and the principles governing their applications in industry. Prerequisite: Electrical Engineering 10. Evening.
- 139 *Illumination Engineering* (2) \_\_\_\_\_  
Principles and practices in present-day illumination engineering. Prerequisite: Electrical Engineering 10. Evening.
- 140 *Electrical Design* (3) Ames  
Principles of design, with reference to materials of construction and electrical equipment. Practical exercises are assigned in connection with classroom work. Prerequisite: Electrical Engineering 109. Lecture (2 hours); laboratory (3 hours)—morning and evening sections.
- 142x *Radio-wave Propagation* (3) Carley, Dickinson  
Theory of the radiation and propagation of electromagnetic waves in space, with consideration of practical application to radio problems. Prerequisite: Electrical Engineering 118. Morning and evening sections.
- 148 *Applications of Electronic Devices* (3) Carley, Dickinson  
Practical applications of electronic devices such as power supplies, voltage regulators, multivibrators, electronic counters, and servo-mechanism. Prerequisite: Physics 133. Evening.
- 150 *Electronic Devices Laboratory* (2) The Staff  
A laboratory course associated with Electrical Engineering 148. Laboratory fee, \$6. Evening.
- 189-90 *Proseminar in Electrical Engineering* (1-1) The Staff  
Prerequisite: Electrical Engineering 108. Late afternoon.



## ENGLISH

- Robert Whitney Bolwell, Ph.D., *Professor of American Literature*  
 Ernest Sewall Shepard, A.M., *Professor of English Literature*  
 \*George Winchester Stone, Jr., Ph.D., *Professor of English Literature*  
 Fred Salisbury Tupper, Ph.D., *Professor of English Literature*  
 Calvin Darlington Linton, Ph.D., *Professor of English Literature*  
 Charles William Cole, Ph.D., *Associate Professor of American Literature, Executive Officer*  
 William Lewis Turner, A.M., *Associate Professor of English*  
 Robert Hamilton Moore, Ph.D., *Associate Professor of English Composition*  
 Averett Howard, A.M., *Associate Professor of English Composition*  
 Muriel Hope McClanahan, Ph.D., *Assistant Professor of English*  
 James Harold Coberly, Ph.D., *Assistant Professor of American Literature*  
 Martin Steele Day, Ph.D., *Assistant Professor of English*  
 Phyllis Annette Nichols, A.M., *Assistant Professor of English*  
 Vera Lillian Mowry, Ph.D., *Assistant Professor of English*  
 ‡John Palmer Reesing, Jr., A.M., *Assistant Professor of English*  
 John Gage Allee, Jr., A.M., *Assistant Professor of English*  
 Russell Fessenden, Ph.D., *Lecturer in English Composition*  
 Ruth Elsie Jones, A.M., *Instructor in English Composition*  
 Carlton Ernest Brett, A.M., *Instructor in English Composition*  
 Murray Hartman, M.S. in Ed., *Instructor in English Composition*  
 Otho Thompson Beall, Jr., A.M., *Instructor in English Composition*  
 Alice Sylvia Venezky, Ph.D., *Instructor in English Composition*  
 Edith Louise Williams, A.M., *Instructor in English Composition*  
 John Judson Monroe, A.M., *Associate in English Composition*  
 Gordon Vanderlip Potter, A.M., *Associate in English Composition*

*The major in English Literature (Field-of-Study).*—The coordinated knowledge which a student must exhibit in the major in English Literature, and upon which he will be examined at the end of his senior year, is summarized under four general headings: (1) the history of English literature from the Anglo-Saxon period; (2) the chief English writers (a certain familiarity with each man and his main works and a detailed knowledge of Shakespeare); (3) English social and political history as it bears upon or is reflected in the literature; (4) European intellectual backgrounds and movements which have affected English literature. It is advised that the student planning to major in English literature elect English 91-92 as his sophomore course. For details, see the pamphlet which is available in the Office of the Dean of Columbian College.

*The major in American Thought and Civilization (Field-of-Study).*—For details, see the pamphlet which is available in the Office of the Dean of Columbian College and consult the adviser.

\* On sabbatical leave 1950-51.

‡ On leave of absence 1950-51.



## ENGLISH COMPOSITION

## FIRST GROUP

- A *English Practice* (3) The Staff  
Instruction, drill, and exercises in grammar, vocabulary, spelling, and mechanics in general; instruction and exercises in composition and reading. This course is designed to prepare students for English 1. Morning and evening sections. (Also offered 1950 summer term.)
- B *English for Foreign Students* (3) Allee  
A course in reading and writing designed to prepare the student for English 1. Special attention is given to spelling, syntax, grammar, idiom, and vocabulary. Evening. (Also offered 1950 summer term.)
- 1-2 *Freshman English\** (3-3) Moore and Staff  
Review of grammar, exercises in composition, readings. Morning, afternoon, and evening sections. (Also offered 1950 summer term.)  
English 1x—same as English 1, but offered winter term. Morning, afternoon, and evening sections.  
English 2x—same as English 2, but offered fall term. Morning, afternoon, and evening sections.
- 9 *Sophomore Composition* (3) Howard and Staff  
A study of types of expository writing with weekly exercises. Prerequisite: English 1-2. Morning and evening sections. (Also offered 1950 summer term.)  
English 9x—same as English 9, but offered winter term. Morning.
- 10 *The Short Story* (3) Howard and Staff  
Some study of the technique of the short story and class criticism of student writing. Prerequisite: English 1-2. Morning and evening sections. (Also offered 1950 summer term.)  
English 10x—same as English 10 but offered fall term. Morning and evening sections.

## SECOND GROUP

- 115 *The Writing of Fiction—the Short Story* (3) Howard  
Evening.
- 117-18 *The Writing of Fiction—the Novel* (3-3) Howard  
Writing a novel. Evening.

## ENGLISH LITERATURE

## FIRST GROUP

- 51-52 *Introduction to English Literature* (3-3) The Staff  
A historical survey. Prerequisite: English 1-2. Morning, afternoon, and evening sections. (Also offered 1950 summer term.)  
English 51x—same as English 51, but offered winter term. Morning and evening sections.  
English 52x—same as English 52, but offered fall term. Morning and evening sections.

\* Students registered in English 1 are tested in the minimum essentials of standard usage, vocabulary, writing skill, and reading speed and comprehension. Those students who show marked superiority may, upon passing of further tests, be exempted from one or both terms of the Freshman English course; those who show deficiencies will be assigned to English A.



91-92 *Introduction to European Literature* Shepard and Staff  
(3-3)

Consideration of various types. Prerequisite: English 1-2. Afternoon and evening sections. (Also offered 1950 summer term.)

SECOND GROUP \*

121-22 *English Literature from the Beginnings to 1500* (3-3) Allee

Fall term, English literature prior to Chaucer; winter term, Chaucer. Evening. (Also offered 1950 summer term—English 122 (3).)

125 *The Evolution of Modern Speech* (3) Allee

The development of the English language in a historical treatment of English grammar. Evening. (Also offered 1950 summer term.)

126 *The Appreciation of Literature* (3) Stone

The study of the principles of criticism and their application to various literary types.

Summer term 1950.

129-30 *Elizabethan Nondramatic Literature* (3-3) Tupper

Nondramatic literature from 1485 to 1603. Morning.

135-36 *Shakespeare* (3-3) Tupper

Morning.

139-40 *The Seventeenth Century* (3-3) Linton

First half, poetry and prose from 1603 to 1660; second half, Milton. Morning. (Also offered 1950 summer term—English 140 (3).)

141-42 *The Neoclassical Movement* (3-3) Stone

Poetry and prose from 1660 through the mid-eighteenth century. (Not offered in 1950-51.)

151-52 *The Romantic Movement* (3-3) Day

From the mid-eighteenth century through Shelley and Keats. Morning.

161-62 *Victorian Literature* (3-3) Shepard

Poetry and prose from 1830 to 1900. Morning. (Also offered 1950 summer term—English 162x (3).)

165-66 *The Twentieth Century* (3-3) Linton

British poetry, prose, and drama since 1900. Morning. (Also offered 1950 summer term—English 165x (3).)

181-82 *The English Novel* (3-3) Day

Major English novelists from Richardson to Woolf. Morning. (Also offered 1950 summer term—English 182 (3).)

\* English 51-52, 71-72, or 91-92 is prerequisite to all second group courses except English 125 and 126.



- 183-84 *The English Drama* (3-3) Tupper  
The first half is concerned principally with the drama of Shakespeare's contemporaries. The second half is a historical survey from 1660 to the present day. Evening.
- 199-200 *Proseminar: Readings for the English Literature Major* (3-3) Tupper, Linton  
Conferences and group discussions. Afternoon and evening sections.

## THIRD GROUP

- 201-2 *Methods and Materials in Elizabethan Research* (3-3)  
Open only to the graduate student. Admission by permission of the instructor. (Not offered in 1950-51.)
- 222 *The Age of Chaucer* (3) Stone  
Summer term 1950.
- 223-24 *Old English* (3-3) Allee  
English language and literature before 1100. Fall term, Old English grammar and readings; winter term, Beowulf. Evening.
- 235-36 *Studies in Shakespeare and His Contemporaries* (3-3) Tupper  
Prerequisite: English 135-36. (Not offered in 1950-51.)
- 239-40 *Studies in the Seventeenth Century* (3-3) Linton  
Prerequisite: English 139-40. (Not offered in 1950-51.)
- 241-42 *Studies in Neoclassical Literature* (3-3) Stone  
Prerequisite: English 141-42. (Not offered in 1950-51.)
- 244 *Studies in Eighteenth Century Drama* (3) Stone  
(Not offered in 1950-51.)
- 251-52 *Studies in the Romantic Movement* (3-3) Day  
Prerequisite: English 151-52. Evening. (Also offered summer term 1950-English 252 (3).)
- 261-62 *Studies in Victorian Literature* (3-3) Shepard  
Prerequisite: English 161-62. (Not offered in 1950-51.)
- 295-96 *History of English Literary Criticism* (3-3) Shepard  
Open to the undergraduate with the approval of the instructor. Evening.
- 299-300 *Thesis* (3-3) The Staff

## RELATED COURSES IN OTHER DEPARTMENTS

Classical Languages and Literatures 71-72, *Greek and Roman Backgrounds in Literature*  
Education 136, *Teaching of English*  
German 221, *Introduction to Linguistics*  
History 151-52, *English History*  
Philosophy 111-12, *History of Philosophy*



## AMERICAN LITERATURE

## FIRST GROUP

- 71-72 *Introduction to American Literature* Bolwell and Staff  
(3-3)  
A historical survey. First half: from the beginnings to the Civil War. Second half: from Civil War to the present day. Prerequisite: English 1-2. Morning and evening sections. (Also offered 1950 summer term.)

## SECOND GROUP

- 171-72 *Studies in American Literature* (3-3) Cole  
Major factors in the national cultural tradition as shown by outstanding writers. Prerequisite: English 51-52 or 71-72. Evening.
- 173-74 *Major American Poets* (3-3) Coberly, Cole  
Advanced critical study of significant writers and movements. First half: from beginnings through nineteenth century. Second half: the twentieth century. Prerequisite: English 51-52, 71-72, or 91-92. Morning. (Also offered 1950 summer term—English 173 (3).)
- 175-76 *American Drama* (3-3) Cole, Bolwell  
Historical and critical study of significant plays and forms. First half: from beginnings through nineteenth century. Second half: the twentieth century. Prerequisite: English 51-52, 71-72, or 91-92. Morning. (Also offered 1950 summer term—English 176 (3).)
- 177-78 *American Fiction* (3-3) Coberly  
Historical and critical study of significant novels and short stories. First half: from beginnings through nineteenth century. Second half: the twentieth century. Prerequisite: English 51-52, 71-72, or 91-92. Evening. (Also offered 1950 summer term—English 177 (3).)
- 179-80 *Proseminar: Readings for American Thought and Civilization Major* (3-3) The Staff  
Conferences and group discussions. Afternoon and evening sections.

## THIRD GROUP

- 271-72 *Seminar: American Literature* (3-3) Bolwell  
Prerequisite: English 171-72 or the equivalent. Evening.
- 277-78 *Studies in American Fiction* (3-3) Coberly  
Topic: Nineteenth Century Transcendentalism. Prerequisite: English 177-78 or the equivalent. Evening.
- 279-80 *Thesis* (3-3) The Staff



## GEOGRAPHY

Robert Dale Campbell, Ph.D., *Associate Professor of Geography, Executive Officer*

William Franklin Jewell III, M.S., *Assistant Professor of Geography*

Walter Hall Bailey, A.M., *Assistant Professor of Geography*

\*William Adriance Withington, A.M., *Instructor in Geography*

*The major in Geography (Departmental).*—Prerequisite: Geography 51 and 52. Required: twenty-four credit hours of Geography (which must include Geography 103-4 and 113-14) beyond first-group courses; fifteen credit hours in one or more of the following departments: Botany, Geology, Economics, History, or Political Science. Strongly recommended: Botany 1 and 2, Economics 1 and 2, and History 71-72.

### FIRST GROUP

- 51 *Introduction to Geography* (3) Campbell  
A study of the attributes of place; patterns and associations of physical and cultural earth-features; the systematic appraisal of earth-man relationships. Morning. (Also offered 1950 summer term.)  
Geography 51x—same as Geography 51, but offered winter term. Evening.

- 52 *Introduction to Earth Sciences* (3) Jewell  
An introduction to the sciences dealing with the physical earth: the lithosphere, the hydrosphere, and the atmosphere. Morning. (Also offered 1950 summer term.)  
Geography 52x—same as Geography 52, but offered fall term. Evening.

### SECOND GROUP

- 103-4 *Cartography* (3-3) Jewell  
Principles of cartographic drafting; elementary map projections; map and graph planning, design, and construction; uses and interpretation of maps. Prerequisite: Geography 51 and 52. Laboratory fee, \$3 a term. Lecture (2 hours); laboratory (4 hours). Morning and evening sections.

- 113 *Geomorphology* (3) Bailey  
The nature and evolution of earth forms, with special emphasis upon relief features of North America. Prerequisite: Geography 52. Lecture (2 hours)—evening; field work (2 hours)—Saturday.

- 114 *Weather and Climate* (3) Bailey  
Rudimentary atmospheric physics, air mass and frontal weather analysis, regional climatology. Prerequisite: Geography 52. Lecture (2 hours)—evening; laboratory and field work (2 hours)—Saturday.

\* On leave of absence 1950-51.



- 122 *Political Geography* (3) Campbell  
The effect of geographic factors upon the structure and growth of states and upon the relations between states. Prerequisite: Geography 51. Evening.
- 123 *Economic Geography* (3) Jewell  
A study of man's economic activities as adjustments to the physical and cultural environments. Prerequisite: Geography 51. Evening.
- 125 *Trade and Transportation* (3)  
The influence of geographic factors on the forms of transportation and upon trade routes. Prerequisite: Geography 51. 1951-52 and alternate years.
- 131 *Conservation of Natural Resources* (3)  
Principles and problems of conservation of vital natural resources: soils, water, forests, minerals, fuels, wildlife. Prerequisite: Geography 51. 1951-52 and alternate years.
- 132 *Land Use* (3) Jewell  
Principles of geographic area analysis and land planning. Field trips and field problems. Prerequisite: Geography 51 and 52. 1950-51 and alternate years, evening.
- 141 *Geography of Settlement* (3) Bailey  
The study of the nature and form of settlement, and of population trends and patterns. Prerequisite: Geography 51. 1950-51 and alternate years, afternoon.
- 142 *Urban Geography* (3) Bailey  
The study of the location, form, and function of cities. Prerequisite: Geography 51. 1950-51 and alternate years, afternoon.
- 161 *Geography of Soils* (3) Jewell  
The physical nature, development, and world distribution of soils, soils and land use, current and future soil problems. Prerequisite: Geography 51 and 52. 1950-51 and alternate years, evening.
- 163 *World Climates* (3)  
An analysis of climatic classifications; the study of distribution of world climates and their geographic significance. Prerequisite: Geography 114.  
Summer term 1950.
- 171-72 *Field Geography* (3-3) Bailey  
Field study methods, training in mapping and analysis techniques for both rural and urban areas. Prerequisite: Geography 51 and 52. Fee, \$10 a term. Field trips (6 hours). Afternoon.
- 181 *Anglo-America* \* (3) Jewell  
1950-51 and alternate years, evening.

\* Regional survey. No prerequisite.



- |     |   |          |
|-----|---|----------|
| 182 | <i>Historical Geography of the United States</i> * (3)<br>1950-51 and alternate years, evening. | Campbell |
| 183 | <i>Northwest Europe</i> * (3)<br>1950-51 and alternate years, afternoon.                        | Bailey   |
| 184 | <i>Mediterranean Region</i> * (3)<br>1950-51 and alternate years, afternoon.                    | Bailey   |
| 191 | <i>Middle America</i> * (3)<br>1951-52 and alternate years.                                     |          |
| 192 | <i>South America</i> * (3)<br>1951-52 and alternate years.                                      |          |
| 195 | <i>Eastern and Southern Asia</i> * (3)<br>1951-52 and alternate years.                          |          |
| 196 | <i>Southwestern Asia and Soviet Union</i> * (3)<br>1951-52 and alternate years.                 |          |

## THIRD GROUP ‡

- |         |  |           |
|---------|--|-----------|
| 201-2   | <i>Seminar: History and Philosophy of Geography</i> (3-3)<br>Required of the Master of Arts candidate. Time to be arranged.  | Campbell  |
| 215     | <i>Geographic Factors in American Foreign Policy</i> (3)<br>Summer term 1950.  | Koenig    |
| 218     | <i>Regional Planning</i> (3)<br>A survey of national and local resource utilization programs, the history of planning, the role of geography in land planning activities. 1951-52 and alternate years.                               |           |
| 231-32  | <i>Seminar in Geography</i> (3-3)<br>Subjects of immediate interest for students of geography and professional geographers in the Washington area.<br>Summer term 1950: <i>Geography of Recreation and Geography of the Oceans</i> . | The Staff |
| 251-52  | <i>Seminar: Problem Areas of the World</i> (3-3)<br>Summer term 1950—Geography 251 (3).  | _____     |
| 295-96  | <i>Research</i> (3-3)<br>Special directed studies. Time to be arranged.  | The Staff |
| 299-300 | <i>Thesis</i> (3-3)<br>Time to be arranged. (Also offered 1950 summer term.)   | The Staff |

\* Regional survey. No prerequisite.

‡ Senior major or graduate status is required for registration in any third-group course.



## GEOLOGY

\_\_\_\_\_, *Associate Professor of Geology*

\_\_\_\_\_, *Instructor in Geology*

*Minimum requirements for the major (Departmental).—Twenty-four credit hours of geology beyond the first-group courses.*

### FIRST GROUP

#### 5 *Field Geology* (6)

Field trips to neighboring localities of geological interest, with classroom study. (Not offered in 1950-51.)

#### 21-22 *Physical and Historical Geology* (3-3)

Survey course covering the principles of physiography, geology, and mineralogy. (Not offered in 1950-51.)

### SECOND GROUP

#### 121-22 *Paleontology* (3-3)

Lectures and laboratory work on classification and structure of fossil invertebrates, vertebrates, and plants, including their use as guide fossils in stratigraphic geology. (Not offered in 1950-51.)

#### 123-24 *Regional Geology of North and South America* (3-3)

Lectures and map work on the physiographic regions of the Western Hemisphere, stressing the relationship between geology and geography and culture. (Not offered in 1950-51.)

#### 125-26 *Regional Geology of the Eastern Hemisphere* (3-3)

Alternating with Geology 123-24 and with it completing a survey of the world. (Not offered in 1950-51.)

### THIRD GROUP

#### 215-16 *Seminar* (3-3)

Detailed study and presentation by the class and instructor of some phase of geology with review of current literature. (Not offered in 1950-51.)

#### 227-28 *Research*

Original work on individual problems, including a digest of the published record. (Not offered in 1950-51.)

#### 299-300 *Thesis* (3-3)

(Not offered in 1950-51.)



## GERMANIC LANGUAGES AND LITERATURES

\*Edward Henry Sehrt, Ph.D., *Professor of German, Executive Officer*  
 Gretchen Louisa Rogers, Ph.D., *Associate Professor of German*  
 Wolfram Karl Legner, Ph.D., *Associate Professor of German*  
 Nicholas Trephon Cokenias, A.M., *Instructor in German*

*Minimum requirements for the major in Germanic Languages and Literatures (Departmental).—Twenty-four credit hours of German beyond first-group courses.*

### FIRST GROUP

- †1-2 *First-year German* (3-3) Rogers, Legner, and Staff  
 The essentials of German grammar; translation of easy prose. Morning afternoon, and evening sections. (Also offered 1950 summer term.)  
 German 1x—same as German 1, but offered winter term. Morning.  
 German 2x—same as German 2, but offered fall term. Morning.
- †3-4 *Second-year German* (3-3) Rogers, Legner, and Staff  
 Selections from modern German prose; review of grammar. Prerequisite: German 1-2 or two years of high school German. Morning and evening sections. (Also offered 1950 summer term.)  
 German 3x—same as German 3, but offered winter term. Morning.  
 German 4x—same as German 4, but offered fall term. Morning.

### SECOND GROUP

- †101-2 *Rapid Readings in Modern German Prose* (3-3) The Staff  
 Morning and evening sections.
- †103-4 *Goethe's "Faust"* (3-3) Sehrt  
 Time to be arranged.
- †105-6 *German Classicism* (3-3) Sehrt  
 Particularly the works of Goethe and Schiller. (Not offered in 1950-51.)
- 109-10 *German Drama since 1800* (3-3) Sehrt  
 Dramas of Kleist, Grillparzer, Hebbel, and Hauptmann. Time to be arranged.
- †111-12 *The German Romantic Movement* (3-3) Sehrt  
 (Not offered in 1950-51.)
- †115-16 *Survey of German Literature* (3-3) Legner  
 Time to be arranged.

\* On sabbatical leave winter term 1950-51.



†121-22 *Conversation and Composition* (3-3) Rogers  
Prerequisite: German 3-4 or the equivalent. Morning and evening sections.

†123-24 *The German "Novelle und Roman"* (3-3) Rogers  
(Not offered in 1950-51.)

## THIRD GROUP

†201-2 *Middle High German* (3-3) Sehrt  
Evening.

†205-6 *Gothic* (3-3) Sehrt  
Introduction to the comparative study of the Germanic Languages.  
(Not offered in 1950-51.)

†209-10 *Old High German* (3-3) Sehrt  
(Not offered in 1950-51.)

213-14 *Old Norse* (3-3) Sehrt  
Evening.

†219-20 *Comparative Germanic Grammar* (3-3) Sehrt  
(Not offered in 1950-51.)

## LINGUISTICS AND COMPARATIVE PHILOLOGY

221 *Introduction to Linguistics* (3) Sehrt  
Linguistics and comparative philology. Admission by permission of the instructor. (Not offered in 1950-51.)

222 *Indo-European Languages* (3) Sehrt  
Application of the laws of sound change in language; origin and development of suffixes and inflections; syntax. (Not offered in 1950-51.)

†223-24 *Sanskrit* (3-3) Sehrt  
Introduction to comparative Indo-European grammar. Evening.

299-300 *Thesis* (3-3) The Staff



## HEALTH ADMINISTRATION

Daniel LeRay Borden, A.M., M.D., *University Surgeon, Director*  
Luther Sheldon, Jr., M.D., *University Physician*  
Sally Steele MacDonald, A.B., M.D., *Associate University Physician*  
Robert Howe Harmon, A.B., M.D., *Associate University Physician*  
Ronald Atmore Cox, A.B., M.D., *Associate University Physician (Eye)*  
Richard Bernard Castell, A.B., M.D., *Associate University Physician*  
Alfred Brigulio, M.D., *Associate University Physician*  
David Davis, A.B., M.D., *Associate University Physician (Nose and Throat)*  
Juanita Love, R.N., *Nurse*  
Mabel Viola Taylor, R.N., *Nurse-Secretary*

The University maintains a health service that is primarily diagnostic in its intent. For medical emergencies and health consultations there is, on the Campus, a Student Health Clinic open from 9:00 A.M. to 5:00 P.M., with physician and nurse in attendance. There is also a rest room for women, with a graduate nurse in charge.

Medical privileges include: (1) the physical examination of every student entering from secondary school;\* (2) three visits by the University physician or surgeon, office or residence (District of Columbia) in any one illness, exclusive of a specialist, surgical operation, laboratory, or X-ray examination; (3) hospitalization, including board and nursing, in the University Hospital for not more than one week during any twelve-month period—the necessity to be determined by the Director of Health Administration. The duration of hospitalization period (maximum, one week) is also to be determined by the Director of Health Administration.

This medical benefit does not apply to illness or disability incurred previous to the University term or prior to payment of tuition fees.

The student is allowed, if he so desires, to engage physicians and nurses of his own choice, but when he does so he will be responsible for the fees charged.

Rules: (1) The Director of Health Administration is empowered to limit or deny the medical benefits where, in his discretion, a student has, by his misconduct or breach of the rules of the University, made himself ineligible; (2) the Director of Health Administration has authority to determine the necessity and length of hospitalization; (3) a student who has severed his connection with the University is ineligible for medical benefits; (4) a student intending to train for an athletic team is required to pass a thorough examination at the beginning of each term; (5) the above regulations apply also during the summer term of the University.

The University is not responsible for injuries received in inter-collegiate or intra-mural games, or in any of the activities of the physical education departments.

\* A charge of \$2 is made by the University if a student fails to appear for a physical examination during the period set for this purpose.



## HISTORY

- Elmer Louis Kayser, Ph.D., LL.D., *Professor of European History*  
 Alva Curtis Wilgus, Ph.D., *Professor of Latin American History*  
 Wood Gray, Ph.D., *Professor of American History, Executive Officer*  
 Howard Maxwell Merriman, Ph.D., *Professor of American Diplomatic History*  
 Myron Law Koenig, Ph.D., *Professor of American History*  
 H. F. Arthur Schoenfeld, A.M., *Professorial Lecturer on European Diplomatic History*  
 Roderic Hollett Davison, Ph.D., *Associate Professor of European History*  
 Ronald Bettes Thompson, A.B., *Assistant Professor of European History*  
 Richard Catlin Haskett, A.M., *Assistant Professor of American History*  
 Richard Marache Leighton, Ph.D., *Lecturer in History*

*The major in History (Field-of-Study).*—Prerequisite: History 39-40 and 71-72. The major is centered on the study of the rise, development and spread, and the continuing challenges of Western civilization, attested by a major examination. Under the guidance of an adviser the student will arrange his program in History to attain a balanced coverage of (1) the rise of civilization in Europe to the eve of the French Revolution, (2) the spread of Western culture throughout the world since the close of the fifteenth century, (3) the historic problems of modern industrial civilization from the beginnings of the Industrial Revolution, and (4) the relations of the major nations of Europe and America in their world setting since the Napoleonic Wars. A six-hour research seminar to give training in fundamental techniques is a required part of each major's program, and a proseminar (History 199-200) is offered as a means of integrating the student's understanding of the continuity of Western civilization. For details relating to the administration and content of the major, see the pamphlet on this subject, which is available in the offices of the Dean of Columbian College and the Executive Officer of the History Department.

### FIRST GROUP

- 39-40 *The Development of European Civilization* (3-3) Kayser, Davison, Thompson  
 Primarily for freshmen. Fall term: the political, social, economic, and cultural history of the Old World from ancient times to 1648. Winter term: from 1648 to the present. Morning and evening sections. (Also offered 1950 summer term.)  
 History 39x—same as History 39, but offered winter term. Afternoon.  
 History 40x—same as History 40, but offered fall term. Afternoon.
- 71-72 *The Development of the Civilization of the United States* (3-3) Koenig, Haskett  
 Primarily for sophomores. Fall term: the political, social, economic,



and cultural forces of the United States in their world setting from 1492 to 1865. Winter term: from 1865 to the present. Morning and evening sections. (Also offered 1950 summer term.)

History 71x—same as History 71, but offered winter term. Afternoon.

History 72x—same as History 72, but offered fall term. Afternoon.

#### SECOND GROUP \*

- 109-10 *The Civilization of the Ancient World* (3-3) Kayser  
Fall term: the culture of Ancient Greece to the end of the Hellenistic period. Winter term: Roman culture from its beginnings to the fall of the Empire in the West. Morning.
- 119 *Intellectual History of Europe During the Middle Ages* (3) Kayser  
A historical survey of the culture of Western Europe from the fall of the Roman Empire to the end of the thirteenth century. (Not offered in 1950-51.)
- 120 *Intellectual Aspects of the Renaissance and the Reformation* (3) Kayser  
Aspects of the development of the modern mind approached through a study of the lives and contributions of outstanding personalities of the period. (Not offered in 1950-51.)
- 130x *Nationalism* (3) Kayser  
The historical evolution of modern nationalism.  
Summer term 1950.
- 145-46 *Russian History* (3-3) Thompson  
Main currents in economic, social, and political developments and world relations. Fall term: from the rise of the Kievan state to the Revolution of 1917. Winter term: the Soviet period. Evening.  
History 146x—same as History 146, but offered fall term. Morning.
- 147 *Economic History of Europe* (3) Leighton  
A survey from ancient times to the present day. Evening.
- 148 *Oversea Expansion of Europe* (3) Leighton  
International rivalries and the impact of European civilization in Africa and the Pacific basin since 1500, with emphasis on the nineteenth and twentieth centuries. Evening.
- 149-50 *European Diplomatic History* (3-3) Davison  
Background of the European state system and of diplomatic practices and relations since the Congress of Vienna, with emphasis on the policies and actions of the great powers and their statesmen. Fall term to 1871, morning; winter term: since 1871, morning and evening sections. (Also offered 1950 summer term—History 150x (3).)

\* History 39-40 is prerequisite to courses 109 through 152 and 193-94; History 71-72, to courses 161 through 184.



- 151-52 *English History* (3-3) Haskett  
A general survey course. Evening.
- 161-62 *Latin American History* (3-3) Wilgus  
Development of political, economic, social, and institutional affairs of the Ibero-American colonies (fall term) and the period since independence (winter term). Evening. (Also offered 1950 summer term.)  
History 161x—same as History 161, but offered winter term. Afternoon.  
History 162x—same as History 162, but offered fall term. Afternoon.
- 163-64 *Current Latin American Problems* (3-3) Wilgus  
Afternoon.
- 171-72 *Social History of the United States* (3-3) Gray  
Daily life, institutions, intellectual and artistic achievements of the Agrarian Era, 1607-1861; and the Urban-Industrial Era, 1861 to the present time. Morning.
- 173 *Representative Americans* (3) Gray  
A biographical approach to national history. Some fifty significant and pivotal personalities in the development of the United States in government, business, science, religion, journalism, the arts, and social reform. Evening. (Also offered 1950 summer term.)
- 174 *Economic History of the United States* (3) Gray  
Main trends in the development of American agriculture, industry, and trade since 1607, with emphasis on tendencies and problems since the Civil War. Evening. (Also offered 1950 summer term.)
- 175-76 *Constitutional and Political History of the United States* (3-3) Haskett  
The programs and conflicts of group interests in America within the legal and political framework. Fall term: to the Civil War; winter term: since the Civil War. Morning.
- 181-82 *Diplomatic History of the United States* (3-3) Merriman  
Tendencies toward isolation, expansion, and collectivism; disputes with foreign countries and their settlement; and the activities of the American secretaries of state and diplomatic agents. Fall term: to 1871; winter term: since 1871. Morning and evening sections. (Also offered 1950 summer term.)
- 183 *Oversea Expansion of the United States* (3) Merriman  
The political, economic, social, and cultural life of our outlying possessions. Morning.
- 184 *Canada and the United States* (3) Merriman  
The historical background and main trends in the relationship of the two English-speaking peoples of North America. Morning.
- 191-92 *Current History* (1-1) Kayser  
Contemporary events in their world setting. Afternoon.



- 193 *History of the Near East* (3) Davison  
The Ottoman Empire and its successors, from the fall of the Byzantine Empire to the breakup of the Ottoman Empire. Morning.
- 194 *History of the Far East* (3) Thompson  
The civilizations of China, India, and Japan, in their relations with the West. Morning.
- 199-200 *Proseminar: Reading for the History Major* (3-3) The Staff  
Limited to majors in History. Readings and discussions on main trends in the history of Western civilization, including representative selections from the classics of historical literature. Evening. (Also offered 1950 summer term.)

## THIRD GROUP \*

- 241-42 *Conference Seminar in Recent European Diplomatic History* (3-3) Schoenfeld  
Evening.
- 243-44 *Reading Course in Modern European History* (3-3) Davison  
Primarily for graduate students. Time to be arranged.
- 245-46 *Seminar in Russian History* (3-3) Thompson  
Evening.
- 247-48 *Reading Course in Russian History* (3-3) Thompson  
Primarily for graduate students. Time to be arranged.
- 249-50 *Seminar in European Diplomatic History* (3-3) Davison  
Afternoon. (Also offered 1950 summer term—History 249 (3).)
- 261-62 *Seminar in Latin American History* (3-3) Wilgus  
Afternoon. (Also offered 1950 summer term—History 262 (3).)
- 265-66 *Reading Course in Latin American History* (3-3) Wilgus  
Primarily for graduate students. Time to be arranged.
- 271-72 *Seminar in the Social History of the United States* (3-3) Gray  
Afternoon. (Also offered 1950 summer term—History 272 (3).)
- 273-74 *Reading Course in American Social History* (3-3) Gray  
Primarily for graduate students. Time to be arranged.

\* Approval of the instructor is required for registration in each third-group course.



- 275-76 *Seminar in American Political and Constitutional History* (3-3) Haskett  
Evening.
- 277-78 *Reading Course in British and American Constitutional History* (3-3) Haskett  
Primarily for graduate students. Time to be arranged.
- 281-82 *Seminar in the Diplomatic History of the United States* (3-3) Merriman  
Afternoon. (Also offered 1950 summer term—History 281 (3).)
- 285-86 *Reading Course in the Diplomatic History of the United States* (3-3) Merriman  
Primarily for graduate students. Time to be arranged.
- 287 *Conference Seminar on the Development of the Foreign Policy of the United States* (3) Schoenfeld  
Evening.
- 291-92 *Seminar* (3-3) The Staff  
Prerequisite: approval of the Department. Time to be arranged.  
(Also offered 1950 summer term.)
- 299-300 *Thesis* (3-3) The Staff  
Required of all candidates for the Master's degree specializing in history. Time to be arranged. (Also offered 1950 summer term.)



## HOME ECONOMICS

Frances Kirkpatrick, A.M., *Professor of Home Economics, Executive Officer*

Kathryn Mildred Towne, A.M., *Associate Professor of Home Economics*

*Minimum requirements for the degree.*—See pages 130-31 and 132.

### FIRST GROUP

- 1 *Food Selection and Preparation* (3) Kirkpatrick  
Composition, selection, and preparation of food; analysis of recipes; standard products; planning, preparing, serving, and estimating the cost of meals. Material fee, \$12.50. Morning, afternoon, and evening sections.
- 22 *Clothing: Its Selection, Cost, and Care* (3) Towne  
Clothing selection—the economic, aesthetic, and hygienic aspects; the application of the principles of color and design to individual selection; the care of clothing. Morning.
- 51x *Family Meals* (3) Kirkpatrick  
The choice, purchase, preparation, and service of foods; dietary standards, food habits, and the nutritional needs of the family; problems of purchasing, care, and use of food by the consumer. Material fee, \$7.50. Lecture (2 hours), laboratory (3 hours)—morning.
- 53x *Family Health and Household Sanitation* (3) Kirkpatrick  
Home hygiene and home care of the sick; the principles of household sanitation in relation to health and diseases. Material fee, \$4. Morning.
- 62 *Clothing Construction* (3) Towne  
Techniques of construction suitable for cotton, wool, and rayon fabrics; the use of commercial patterns and their alteration; the proper selection of color, design, and fabric. Material fee, \$4. Afternoon and evening sections.  
Home Economics 62x—same as Home Economics 62, but offered fall term. Morning.
- 71x *Costume Design and Fashion Economics* (3) Towne  
Factors determining fashions and effect on cost of clothing; problems of the consumer of textiles and clothing; historic costume and its relation to modern dress. Material fee, \$3. Afternoon.
- 72x *Household Textiles* (3) Towne  
Properties, uses, and tests of the different textile fibres and fabrics, and development of judgment and knowledge of standard for the consumer of clothing and house-furnishing material. Material fee, \$3. Morning.



- 77 *Marketing* (3) Kirkpatrick  
Purchasing of foods as it relates to the home and to the institution.  
(Offered in 1951-52 and alternate years.)

## SECOND GROUP

- 102 *Advanced Food Preparation* (3) Kirkpatrick  
The application of the fundamental processes of food preparation to a wider range of food materials and various services for different occasions. Material fee, \$12.50. Evening.
- 106 *Quantity Cookery* (3) The Staff  
(Not offered in 1950-51.)
- 123 *Household Finance and Problems of the Consumer* (3) Towne  
Economic problems of the family in modern industrial society; family income; income apportionment and household expenditures; laws affecting the home; investments; consumer buying. Afternoon.
- 143 *Advanced Clothing Construction* (3) Towne  
Problems of clothing construction, including renovation, flat pattern designing. Material fee, \$4. Afternoon.
- 148 *Food Problems* (3) Kirkpatrick  
Factors affecting the preparation of standard products from the experimental viewpoint; principles of food demonstrations. Material fee, \$12.50. (Not offered in 1950-51.)
- 152x *Nutrition* (3) Kirkpatrick  
Lecture course on the principles of normal and abnormal human nutrition. Laboratory work on the calculation and preparation of dietaries. Laboratory fee, \$3. Morning.
- 154 *Diet Therapy* (3) \_\_\_\_\_  
Study of nutrition as applied to diet and disease. Material fee, \$5. Afternoon.
- 164 *Child Nutrition* (3) Kirkpatrick  
Basic principles in nutrition and growth of the infant, pre-school, and adolescent child in health and disease. Morning.
- 168 *Institutional Management* (3) \_\_\_\_\_  
Study of the organization, equipment, and marketing problems of institutions. Afternoon.
- 171 *House Furnishing* (3) Towne  
Home planning from the historic, artistic, economic, and sanitary viewpoints; home furnishings such as linens, dishes, floor covering, mattresses, etc. Material fee, \$3. Evening.
- 181 *The Child in the Home* (3) Kirkpatrick  
Care and development of children; parent-child relationships. (Offered in 1951-52 and alternate years.)



192 *The Home, Its Management and Equipment* (3) Kirkpatrick

Economical management of the home; distribution of time and energy; problems in the selection, arrangement, and care of equipment. (Not offered in 1950-51.)

193 *Supervision of Home Management* (3) The Staff

Field work under supervision. Designed to meet requirements of those preparing to teach in federally-aided schools. Time to be arranged.

195-96 *Special Problems* (3-3) The Staff

Individual investigation or study under the guidance of a member of the staff. Suggested problems are: home economics education, marketing, tailoring, and draping. Program and conferences arranged with an instructor. Afternoon.

197-98 *Proseminar* (3-3) The Staff

The study of the most recent materials and problems in the various phases of home economics. Evening.



## JOURNALISM

Elbridge Colby, Ph.D., *Professor of Journalism, Executive Officer*

Joseph Marshall Mathias, A.B., LL.B., *Lecturer in Journalism*

Edwin De Frees Neff, M.S., *Lecturer in Journalism*

Stanley Samuel Baitz, LL.B., *Lecturer in Journalism*

Frank Landt Dennis, A.B., LL.B., *Lecturer in Journalism*

William Vance Nessly, *Lecturer in Journalism*

Robert Earl Harper, A.B., *Lecturer in Journalism*

Franklin John Ehlert, *Lecturer in Journalism*

*The major in Journalism (Departmental).*—Prerequisite: Journalism 71-72. Required: a minimum of twenty-four credit hours in second-group journalism courses including 111-12, 116, 151-52, and 199. It is recommended that electives in the junior college be selected from the following: Economics 1-2, English 71-72, History 71-72, Political Science 9-10, Psychology 1, Sociology 1-2, 71-72; and in Columbian College from the following: Business Administration 141, 142, 147; English 171-72, 177-78; Geography 51, 182; History 171-72, 174, 181-82, 191-92; Philosophy 172; Psychology 156.

### FIRST GROUP

#### 71-72 *Journalism Survey* (3-3)

Colby

The newspaper and society; survey of character and content of leading newspapers to develop intelligent reading necessary for understanding of current events; history of American journalism. It is recommended that English 71-72 be taken in conjunction with this course. Prerequisite: English 1-2 or the equivalent. Morning and evening sections.

### SECOND GROUP

#### 111-12 *Reporting* (3-3)

Baitz, Mathias

Techniques of newspaper reporting, instruction and practice in modern methods of gathering and presenting news. Some knowledge of typing is desirable. Prerequisite: English 1-2 or the equivalent. Laboratory fee, \$3 a term. Morning and evening sections.

#### 115 *Copy Editing and Make-up* (3)

Nessly

Editing of news prior to publication, the copy desk, head lines, make-up, the city editor and his functions. Prerequisite: Journalism 111-12 or the equivalent, unless taken concurrently. Morning.

#### 116 *Public Relations* (3)

Harper

The press and information office, technique of news releases, public addresses as news, promotion of feature material, the problem of public relations in government agencies and commercial establishments. Evening.



- 121-22 *Feature Writing* (3-3) Neff  
Instruction and practice in writing of special newspaper and magazine articles for sale, material for which is obtained through interviews and independent investigation. Prerequisite: English 1-2 or the equivalent. Morning.
- 142 *Newspaper Advertising* (3) Ehlert  
Newspaper advertising management, coordination of newspaper advertising with retail sales patterns, advertising readership, copy preparation, production methods. Prerequisite: Business Administration 147. Evening.
- 147-48 *Reporting of National and International Affairs* (3-3)  
Training in the coverage and presentation of national and international news, special attention to Washington correspondence and press association reporting. Prerequisite: Journalism 111-12 or the equivalent. Laboratory fee, \$3 a term. (Not offered in 1950-51.)
- 151-52 *Editorial Writing* (3-3) Colby  
Current events from the standpoint of editorial interpretation, instruction and practice in the writing of editorials and columns on public affairs. It is recommended that History 191-92 be taken in conjunction with this course. Admission by permission of the instructor. Morning and evening sections.
- 199x *Law of the Press* (3) Dennis  
Freedom of the press, censorship, legislative controls, publication as contempt of court, copyright, news gathering agencies, labor law and the newspaper business, law of libel, privileged matter, fair comment on public characters, right of privacy. Morning.

## Second Group

- 111-12 *Reporting* (3-3)  
Techniques of newspaper reporting, instruction and practice in modern methods of gathering and presenting news. Some knowledge of English 1-2 or the equivalent. Prerequisite: English 1-2 or the equivalent. Laboratory fee, \$3 a term. Morning and evening sections.
- 112 *Copy Editing and Make-up* (1)  
Editing of news prior to publication, the copy desk, head lines, make-up, the city editor and his function. Prerequisite: Journalism 111-12 or the equivalent, unless taken concurrently. Morning.
- 116 *Public Relations* (3)  
The press and information office, techniques of news release, public addresses as news, promotion of business interests, the problem of public relations in government agencies and commercial enterprises. Evening.



## LAW

- William Cabell Van Vleck, A.B., LL.B., S.J.D., LL.D., *Professor of Law*  
 Charles Sager Collier, A.B., LL.B., S.J.D., *Professor of Law*  
 William Thomas Fryer, A.B., LL.B., J.D., *Professor of Law*  
 Saul Chesterfield Oppenheim, A.M., J.D., S.J.D., *Professor of Law*  
 Carville Dickinson Benson, A.B., LL.B., S.J.D., *Professor of Law*  
 James Forrester Davison, A.B., LL.B., LL.M., S.J.D., *Professor of Law*  
 James Oliver Murdock, Ph.B., LL.B., *Professor of Law*  
 Oswald Symister Colclough, B.S., LL.B., LL.D., *Professor of Law*  
 George Bowdoin Craighill, A.B., LL.B., *Adjunct Professor of Law*  
 James Ward Morris, A.B., *Adjunct Professor of Law*  
 James Robert Kirkland, A.B., LL.B., LL.M., *Adjunct Professor of Law*  
 Bolitha James Laws, LL.B., LL.M., *Adjunct Professor of Law*  
 Conder Caywood Henry, A.B., LL.B., *Adjunct Professor of Law*  
 John Wingfield Jackson, B.S., LL.B., *Adjunct Professor of Law*  
 Elliott DeJarnette Marshall, LL.B., *Adjunct Professor of Law*  
 Frank Hammett Myers, LL.B., LL.M., *Adjunct Professor of Law*  
 Alvin Leroy Newmyer, LL.B., *Adjunct Professor of Law*  
 John Albert McIntire, A.B., LL.B., *Professorial Lecturer in Law*  
 Justin Lincoln Edgerton, A.B., LL.B., *Professorial Lecturer in Law;*  
     *Clerk of the Moot Court*  
 Karl Rhorer Price, A.B., LL.B., *Professorial Lecturer in Law*  
 Philip Field Herrick, A.B., LL.B., LL.M., *Professorial Lecturer in Law*  
 Raymond Stevens Smethurst, B.S., LL.B., *Professorial Lecturer in Law*  
 Francis Gerald Toye, B.S. in E.E., LL.B., *Professorial Lecturer in Law*  
 George Edward Monk, A.B., LL.B., LL.M., *Professorial Lecturer in*  
     *Law*  
 Louis Loss, B.S., LL.B., *Professorial Lecturer in Law*  
 Charles Sylvanus Rhyne, LL.B., *Professorial Lecturer in Law*  
 Jennings Bailey, Jr., LL.B., *Professorial Lecturer in Law*  
 Robert McKinney Cooper, Ph.M., J.D., *Associate Professor of Law*  
 Leroy Sorenson Merrifield, A.B., LL.B., M.P.A. *Associate Professor of*  
     *Law*  
 John Patrick Burke, A.B., LL.B., *Associate Professor of Law*  
 Herman Israel Orentlicher, A.B., LL.B., *Associate Professor of Law*  
 \*John Theodore Fey, LL.B., M.B.A., *Associate Professor of Law*  
 David Benson Weaver, A.B., LL.B., *Assistant Professor of Law*  
 William Lester Griffin, A.B., LL.B., LL.M., *Assistant Professor of Law*  
 Louis Harkey Mayo, B.S., LL.B., *Assistant Professor of Law*

\* On leave of absence 1950-51.



Arthur Selwyn Miller, A.B., LL.B., *Assistant Professor of Law*  
 William Leigh Ellis, A.B., LL.B., LL.M., *Lecturer in Law*  
 John Alexander Kendrick, A.B., LL.B., *Assistant Clerk of Moot Court*

- 102 *Agency* (2) Cooper, Murdock  
 Problems of agency in the conduct of business. Casebook to be announced. Morning and evening sections. (Also offered 1950 summer term.)
- 112x *Contracts* (4) Merrifield, \_\_\_\_\_  
 Promissory obligation: offer and acceptance, consideration, statute of frauds, formal instruments, rights of third parties, assignments, joint obligations, conditions, performance, discharge. Casebook to be announced. Morning and evening sections. (Also offered 1950 summer term.)
- 123x *Criminal Law and Procedure* (4) Cooper, \_\_\_\_\_  
 Elements of criminal liability; specific crimes; combinations of persons in crime; criminal procedure. Casebook to be announced. Morning and evening sections. (Also offered 1950 summer term.)
- 129 *Legal Method and Legal System* (4) Fryer, Benson, Merrifield, Burke, Orentlicher  
 Introduction to study of substantive and procedural law. Examination of basic concepts with training in method and technique of case law, based upon modern records in state and federal cases and individual practice in the use of law books and legal writing. Importance of language in law and legal reasoning, both apart from and in connection with statutory interpretation and as affected by the use of precedents, under the doctrines of stare decisis, law of the case, and res judicata. Background on development of the English and American legal systems; organization of the judiciary and the bar, stressing enforcement of ethical standards. Fryer and Benson, *Cases on Legal Method*; Fryer and Benson, *Cases on Legal System*. Morning and evening sections. (Also offered 1950 summer term.)  
 Law 129x—same as Law 129, but offered winter term. Morning and evening sections.
- 133x *Personal Property* (4) Fryer  
 Concepts of property, possession, and ownership; legal relations with respect to chattels and documentary intangibles created by gift, sale, pledge, lien, bailment, etc. Fraser, *Cases on Property*, Vol. II, 2d ed.; Fryer, *Readings on Personal Property*, 3d ed. Morning and evening sections. (Also offered 1950 summer term.)
- 137-38 *Real Property* (2-2) Benson, Weaver  
 Real property; introduction; estates, seisin, landlord and tenant; future interests at common law and under the statutes of uses and wills; merger, elementary study of remoteness and powers; adverse possession; prescription; natural rights. Casebook to be announced. Morning and evening sections. (Also offered 1950 summer term.)



- 141 *Torts* (4) Van Vleck, Merrifield  
Civil liability for harms to legally protected interests. Thurston and Seavey, Cases on Torts. Morning.  
Law 141x—same as Law 141, but offered winter term. Evening.
- 205 *Civil Procedure* (4) Burke  
Function and composition of pleadings, including their relation to proof. Emphasis is upon reforms, as exemplified by modern code provisions and the Federal Rules of Civil Procedure. Clark, Cases on Pleading and Procedure, 2d ed. Morning and evening sections.
- 214x *Constitutional Law* (4) Collier  
Historical introduction; judicial approach and methods; doctrine of the separation of powers; powers of the National Government; the federal system; relation of the state courts and the federal courts. Dodd, Cases on Constitutional Law, 3d ed. Morning and evening sections. (Also offered 1950 summer term.)
- 223x *Domestic Relations* (2)  
Marriage, annulment, and divorce; rights of husband and wife; rights of parent and child; infants. (Not offered in 1950-51.)
- 231 *Equity* (4) Burke, Weaver, ———  
Specific performance of contracts; equitable conversion; statute of frauds; mutuality; conditions; defenses; equitable servitudes; powers of an equity court; effect of decrees, interpleader, bills of peace, cloud on title, rescission and reformation, mistake. Chafee and Simpson, Cases on Equity, 2d ed. Morning and evening sections. (Also offered 1950 summer term.)  
Law 231x—same as Law 231, but offered winter term. Morning.
- 233-34 *Evidence* (2-2) Fryer  
Functions of court and jury; witnesses; hearsay, opinion, and circumstantial evidence; proof of authenticity and contents of writings. McCormick, Cases on Evidence, 2d ed. Morning and evening sections. (Also offered 1950 summer term.)
- 246 *Negotiable Instruments* (4) Orentlicher  
Bills of exchange, promissory notes and checks, especially under the Negotiable Instruments Law. Casebook to be announced. Morning and evening sections. (Also offered 1950 summer term.)
- 248 *Conveyances* (2) Benson, ———  
Conveyances, rents, easements, profits, licenses, covenants running with the land, and recording. Kirkwood, Cases on Conveyances, 2d ed. Morning and evening sections. (Also offered 1950 summer term.)
- 251 *Restitution* (4)  
Legal remedies for restitution of benefits obtained or conferred by performance of contract, misrepresentation, mistake, and coercion. (Not offered in 1950-51.)
- 253x *Unfair Trade Practices* (4) Oppenheim  
Unfair trade practices at common law and under state and federal statutes. Trade-marks and trade names, including Trade Mark Act



of 1946. Misappropriation. False advertising at common law. Federal Trade Commission jurisdiction over misrepresentation practices. Lotteries and premiums. Disparagement of competitor's goods and business methods. State Fair Trade Acts (resale price maintenance). Price discrimination (State and Federal Robinson-Patman Act). State statutes, prohibiting sales below cost. Inducing breach of contract. Commercial bribery. Miscellaneous business torts constituting unprivileged interferences with advantageous business relations. Oppenheim, *Unfair Trade Practices, Cases, Comments and Materials* (1950). Morning and evening sections.

254 *Wills* (2) Benson, \_\_\_\_\_

Formation and revocation of wills; testate and intestate succession. Mechem and Atkinson, *Cases on Wills and Administration*, 3d ed. Morning and evening sections. (Also offered 1950 summer term.)

256 *Sales* (2) Orentlicher

Common law, Uniform Sales Act and related statutes. Intention to transfer property interest (specific, unascertained, and future goods); specification and appropriation; cash and conditional sales; C.O.D., F.O.B., and C.I.F. shipments; negotiable bills of lading and warehouse receipts; trust receipts; fraud on seller, retention of possession and bulk sales; remedies of seller and buyer, including suit for price, stoppage in transit, seller's warranties; inspection. Morning and evening sections. (Also offered 1950 summer term.)

258 *Partnerships* (2) \_\_\_\_\_

Nature and formation of partnerships, rights in partnership property, relations of partners among themselves, remedies of creditors, dissolution and winding up. Morning and evening sections.

303-4 *Administrative Law* (2-2) Davison

Legislative setting for administrative bodies; judicial control of administrative action, public utilities, taxation, alien laws. Federal Trade Commission, workmen's compensation, etc. Katz, *Cases on Administrative Law*. Morning section (4)—fall term; evening section (2-2)—fall and winter terms.

311 *Corporations* (4) Cooper

Legal requirements as to contributions of capital; powers and rights of corporations, corporate officials, and shareholders. Berle and Warren, *Business Organization—Corporations*. Morning and evening sections. (Also offered 1950 summer term.)

315x *Conflict of Laws* (4) Van Vleck

Study of cases involving foreign elements; principles of jurisdiction and limitations upon its exercise; procedure, torts, workmen's compensation, contracts, property, family law, administration of estates, business associations. Cheatham, Dowling, Goodrich, and Griswold, *Cases on Conflict of Laws*, 2d ed. Morning and evening sections. (Also offered 1950 summer term.)

317 *Creditors' Rights* (4) \_\_\_\_\_

Remedies of unsecured creditors: judgments, fraudulent conveyances, creditors' agreements, equity and statutory receiverships, and bankruptcy. The general approach is that of law administration. Summer term 1950.



- 321-22 *Current Decisions* (2-2) Davison  
Required of, and limited to, members of the student staff of the *Law Review*. Time to be arranged.
- 324x *Federal Jurisdiction* (2) Cooper, Burke  
Constitutional origins and powers of federal courts; sources of law applicable to them; business and extent of jurisdiction of federal courts. McCormick and Chadbourne, *Cases on Federal Courts*. Morning and evening sections.
- 326x *Insurance* (2) Griffin  
The insurance device in life, property, and other risks. Vance, *Cases on Insurance*, 3d ed. Morning and evening sections.
- 327-28 *International Law* (2-2) Murdock  
Customary and treaty rights and duties of states; diplomatic and consular agents; treaty interpretations; nationality laws; international courts; claims procedure; war; neutrality. Hudson, *Cases on International Law*, 2d ed. Morning and evening sections.
- 329-30 *Labor Law* (2-2) Merrifield, Smethurst  
Laws applicable to strikes, picketing, boycotts, etc.; organization and representation of employees; negotiation of collective bargaining contracts; inter-union and intra-union relations; settlement of wage disputes (arbitration, mediation, conciliation). Cases, legislative and administrative materials, readings. Morning section (4)—fall term; evening section (2-2)—fall and winter terms.
- 332x *Legal Accounting* (2)  
A study of elementary accounting principles and techniques, and an introduction to the interpretation of financial statements. Evening.
- 333-34 *Legislation* (2-2) Ellis  
Justiciable aspects of the legislative process; forms and types of statutes; principles of statutory interpretation, structure, and drafting. Read & McDonald, *Cases and Materials on Legislation*. Evening. (Also offered 1950 summer term.)
- 335-36 *Moot Court* (2-2) Laws, Morris, Craighill, Kirkland, Edgerton, Myers, Marshall, Jackson, Herrick, Monk, Newmyer, Kendrick  
To be taken in the senior year. Prerequisite: Law 205 and 233-34. Morning and evening sections.
- 345 *Substantive Patent Law\** (2) Toye  
Substantive patent law; patentability; revision, use, and enforcement of patents. Evening.
- 346 *Patent Office Practice\** (2) Henry  
Rules of practice; appeal and interference procedure. Evening.

\* Patent law students should take Law 345 and Law 346 concurrently in the fall term and Law 346 and Law 350 concurrently in the winter term. Law 349-50 may be taken only by students who are taking or have taken Law 345.



- 349-50 *Patent Moot Court\** (2-2) Henry, Bailey  
This course may be elected instead of Law 335-36 to satisfy the Moot Court requirement. Both subjects may not be counted toward a degree. Evening.
- 351 *Public Utilities* (2) Davison  
Limits of regulation of businesses affected with public interest; ascertainment of value of property used for the public service and the fixing of adequate rates of return. Welch, Cases on Public Utility Regulation, 3d ed. Evening.  
Law 351x—same as Law 351, but offered winter term. Morning.
- 358 *S.E.C. Aspects of Corporate Finance* (2) Loss  
Federal and state regulation of the distribution of securities, the securities markets, and the corporate structure, and management of public utility and investment companies. Primarily the aspects of corporate finance dealt with by the Securities and Exchange Commission. Evening.
- 362x *Security Transactions* (4) Orentlicher  
Security interests in real and personal property, their creation, transfer, enforcement, and extinguishment, together with security problems in the fields of suretyship and bankruptcy. Casebook to be announced. Morning and evening sections. (Also offered 1950 summer term.)
- 373x *Taxation* (4) Collier  
Introductory course on basic concepts of federal tax system. Attention given to state inheritance and income taxes. Problem of jurisdiction to tax, construction of tax statutes, methods of judicial review of administrative actions in the tax field, modern excise taxes on business concerns. Magill and Maguire, Cases on Taxation, 4th ed. Morning.
- 375-76 *Taxation—Federal* (2-2) Price  
Federal income, gift, and estate taxes, and selected federal tax problems. Evening.
- 378x *Federal Anti-Trust Laws* (4) Oppenheim  
Restraints of trade at common law. Public policy under Sherman Anti-Trust Act of 1890 and Federal Trade Commission and Clayton Acts, including mergers, consolidations and monopoly. Loose association activities (price-fixing agreements, trade associations, international cartels). Specific practices such as resale price maintenance, delivered price systems, exclusive arrangements and tying devices, trade boycotts. Patents and copyrights under anti-trust laws. Remedies. Oppenheim, Cases on Federal Anti-Trust Laws. Evening.
- 381x *Trusts* (4) Weaver  
Creation, elements, administration, enforcement, termination. Liabilities to and of third persons. Resulting and constructive trusts. Bogert, Cases on Trusts, 2d ed. Morning and evening sections. (Also offered 1950 summer term.)

\* Patent law students should take Law 345 and Law 349 concurrently in the fall term and Law 346 and Law 350 concurrently in the winter term. Law 349-50 may be taken only by students who are taking or have taken Law 345.



- 403-4 *Administrative Law Seminar* (2-2) Davison  
Research seminar course in special problems, including the study of specific administrative agencies, federal or state. Time to be arranged.
- 406 *Aviation Law* (2) Rhyné  
Procedure before Civil Aeronautics Board; legal problems arising in connection with air transportation and airports; international conventions and organizations. Evening.
- 407x *Admiralty* (2)  
Federal and state jurisdiction; jurisdiction over waters, craft, contracts, torts, crimes, in equitable matters, etc.; laws applicable to maritime workers and maritime liens. Evening.
- 415-16 *Comparative Law* (2-2) Murdock  
Historical and comparative study of some of the institutions and principles of the Roman and modern Civil Law (law of South and Central America and most of the Continent of Europe) compared with those of the Common Law; the influence of the former upon the latter. Evening.
- 421 *Constitutional Law Seminar* (2) Collier  
Research seminar in contemporary problems in constitutional law. Time to be arranged.
- 430x *International—Comparative Law Seminar* (2) Murdock  
Research seminar in contemporary problems. Time to be arranged.
- 434 *Interstate Commerce Commission Law and Procedure* (2)  
Interstate Commerce Act; the Interstate Commerce Commission; practice and procedure before the Commission. Evening.
- 435x *Jurisprudence* (4) Collier  
History of jurisprudence; schools of jurists, particularly the nineteenth century schools; sociological jurisprudence; theories of justice; the nature of law; law and morals; law and the state; the scope and subject matter of law, sources and forms of law; the traditional element; analysis of general legal concepts. Hall, Readings in Jurisprudence. Evening.
- 447 *Municipal Corporations* (2) McIntire  
Municipal corporations: organization, powers, functions and legal relations of local governmental units. Tooke and McIntire, Cases on Municipal Corporations. Evening. (Also offered 1950 summer term.)
- 448 *Government Corporations* (2) McIntire  
Federal corporate agencies: organization, powers, functions, and legal relations of functional governmental units separately incorporated. Casebook to be announced. Prerequisite: Law 447. Evening.
- 451 *Trade Regulation Seminar* (2) Oppenheim  
A research seminar in specific current problems relating to federal anti-trust laws and unfair trade practices. Time to be arranged.



## MATHEMATICS

James Henry Taylor, Ph.D., *Professor of Mathematics, Executive Officer*  
 Francis Edgar Johnston, Ph.D., *Professor of Mathematics*  
 Florence Marie Mears, Ph.D., *Professor of Mathematics*  
 Nels David Nelson, Ph.D., *Assistant Professor of Mathematics*  
 Earl Larkin Williams, A.M., *Lecturer in Mathematics*  
 Joachim Weyl, Ph.D., *Lecturer in Mathematics*  
 Louis William Tordella, Ph.D., *Lecturer in Mathematics*

*Minimum requirements for the major in Mathematics (Departmental).—Fifteen credit hours of mathematics beyond calculus, i.e., of approved second- and third-group courses.*

### FIRST GROUP\*

#### 3 *College Algebra* (3)

The Staff

Exponents and logarithms; linear equations; complex numbers; quadratic equations; introduction to theory of equations; mathematical induction and the binomial theorem; permutations, combinations, and probability; determinants; progressions. Prerequisite: one year each of high school algebra and high school geometry. Morning and evening sections. (Also offered 1950 summer term.)

Mathematics 3x—same as Mathematics 3, but offered winter term. Morning and evening sections.

#### 6 *Plane Trigonometry* (3)

The Staff

Prerequisite: two years of high school algebra and one year of high school geometry, or Mathematics 3 (or concurrent registration therefor). Morning and evening sections. (Also offered 1950 summer term.)

Mathematics 6x—same as Mathematics 6, but offered fall term. Morning and evening sections.

#### 12 *Analytic Geometry* (3)

The Staff

Prerequisite: Mathematics 3 and 6, or two years of high school algebra, one year of high school geometry, and one-half year of high school trigonometry. Morning and evening sections. (Also offered 1950 summer term.)

Mathematics 12x—same as Mathematics 12, but offered fall term. Morning and evening sections.

#### 19 *Differential Calculus* (3)

The Staff

Prerequisite: Mathematics 12. Morning and evening sections. (Also offered 1950 summer term.)

Mathematics 19x—same as Mathematics 19, but offered winter term. Morning and evening sections.

\* No first-group course in mathematics is available for college credit if the student's previous training in mathematics meets the prerequisite for a higher numbered course.



- 20 *Integral Calculus\** (3) The Staff  
 Prerequisite: Mathematics 19. Morning and evening sections. (Also offered 1950 summer term.)  
 Mathematics 20x—same as Mathematics 20, but offered fall term. Morning and evening sections.

## SECOND GROUP \*

- 102 *Fundamental Concepts of Mathematics* (3)  
 (Not offered in 1950-51.)
- 112 *Mathematics for Engineers and Scientists* (3) The Staff  
 Topics from advanced calculus, partial differential equations, vector analysis, and complex variables. Prerequisite: Mathematics 132. Evening. (Also offered 1950 summer term.)  
 Mathematics 112x—same as Mathematics 112, but offered fall term. Evening.
- 123x *Theory of Equations* (3) Johnston  
 Morning. (Also offered 1950 summer term.)
- 125 *Advanced Algebra* (3) Johnston  
 Summer term 1950.
- 126x *Advanced Analytic Geometry* (3) Taylor  
 Morning.
- 132 *Differential Equations* (3) The Staff  
 Morning and evening sections. (Also offered 1950 summer term.)  
 Mathematics 132x—same as Mathematics 132, but offered fall term. Morning and evening sections.
- 134 *Introduction to Boundary Value Problems* (3)  
 Prerequisite: Mathematics 132. (Not offered in 1950-51.)
- †135-36 *Projective Geometry* (2-2)  
 (Not offered in 1950-51.)
- 139 *Advanced Calculus* (3) Mears, Nelson  
 Morning and evening sections.
- 140 *Introduction to Analysis* (3) Mears, Nelson  
 Prerequisite: Mathematics 139. Evening.
- 141 *Introduction to Infinite Series* (3) Mears  
 Evening.
- 167 *Fourier Series and Spherical Harmonics* (3)  
 Prerequisite: Mathematics 132. (Not offered in 1950-51.)

\* Mathematics 20 is prerequisite to all second-group courses.



- 171 *Vector Analysis* (3)  
Evening. Taylor
- THIRD GROUP
- 202 *Mathematical Logic* (3)  
(Not offered in 1950-51.)
- 220 *Theory of Numbers* (3)  
Evening. Johnston
- †237-38 *Theory of Functions* (3-3)  
(Not offered in 1950-51.)
- 242 *Infinite Series* (3)  
Evening. Mears
- 249 *Ordinary Differential Equations* (3)  
(Not offered in 1950-51.)
- 250 *Integral Equations* (3)  
(Not offered in 1950-51.)
- 255 *Differential Geometry* (3)  
Evening. Taylor
- 257 *Theory of Groups* (3)  
(Not offered in 1950-51.)
- 265-66 *Modern Algebra* (3-3)  
Evening. Johnston
- 268 *Calculus of Variations* (3)  
(Not offered in 1950-51.)
- 270 *Tensor Analysis* (3)  
Evening. Taylor
- 271 *Riemannian Geometry* (3)  
(Not offered in 1950-51.)
- 277 *Partial Differential Equations* (3)  
Evening. Weyl
- 278 *Introduction to Topology* (3)  
Evening. Weyl
- 295-96 *Reading and Research* (3-3)  
Time to be arranged. The Staff
- 299-300 *Thesis* (3-3) The Staff



## MECHANICAL ENGINEERING

- Arthur Frederick Johnson, M.E., Ph.D., *Professor of Mechanical Engineering*  
 Frederick Morris Feiker, B.S. in E.E., D.Eng., *Professor of Engineering Administration*  
 Benjamin Carpenter Cruickshanks, B.S. in M.E., *Professor of Mechanical Engineering, Executive Officer*  
 Robert Gay Trumbull, B.S. in C.E., *Associate Professor of Mechanical Engineering*  
 Charles Edward Greeley, B.S. in M.E., *Associate Professor of Mechanical Engineering*  
 Frederick Henry Kohloss, B.S. in M.E., LL.B., *Assistant Professor of Mechanical Engineering*  
 Rudolph Michel, M.S. in M.E., *Lecturer in Mechanical Engineering*  
 Edward Frederick Kelley, M.S., Ae.E., *Lecturer in Mechanical Engineering*  
 Bernard Bernstein, B.S., B.M.E., *Lecturer in Mechanical Engineering*  
 Richard Lee Fenton, B.M.E., *Lecturer in Mechanical Engineering*  
 William Clayton Justice, B.S. in Eng., *Lecturer in Mechanical Engineering*  
 John Clifford Goff, B.M.E., *Associate in Mechanical Engineering*  
 Edward French Davis, M.S., *Associate in Mechanical Engineering*
- Minimum requirements for the major.—See pages 112 and 115-16.*

### FIRST GROUP

- 1 *Engineering Survey and Orientation* (1) Cruickshanks and Staff  
 Open to freshmen only. Afternoon and evening sections.
- 3 *Mechanical Drawing* (2) Trumbull, Kohloss, Davis  
 Drafting-room fee, \$3. Drafting (6 hours)—afternoon and evening sections.
- 4 *Descriptive Geometry* (2) Trumbull, Kohloss, Davis  
 Drafting-room fee, \$3. Drafting (6 hours)—afternoon and evening sections.
- 5 *Introductory Naval Architecture* (3)  
 Nomenclature, functions, and arrangement of hull structure, equipment, and machinery for merchant vessels. Lectures supplemented by visits to shipyards. (Not offered in 1950-51.)
- 7 *Machine Drawing* (2) Trumbull, Goff  
 Prerequisite: Mechanical Engineering 3 and 4. Drafting-room fee, \$3. Drafting (6 hours)—afternoon and evening sections.



- 8 *Mechanism Drawing* (2) Trumbull, Goff  
Prerequisite: Mechanical Engineering 3, 4, and 13. Prerequisite or concurrent registration: Mechanical Engineering 14. Drafting-room fee, \$3. Drafting (6 hours)—afternoon and evening sections.
- 9-10 *Ship Drafting* (2-2)  
Fairing of lines; displacement, stability curves, midship section, general arrangements and structural detail plans, machinery details. Prerequisite or concurrent registration: Mechanical Engineering 15. Drafting-room fee, \$3 a term. (Not offered in 1950-51.)
- 13-14 *Mechanism* (2-2) Trumbull, Fenton  
Prerequisite: Mathematics 19. Prerequisite or concurrent registration: Mathematics 20. Morning and evening sections.
- 15-16 *Elementary Ship Calculations* (2-2)  
Form characteristics, detailed weights, displacement, transverse and longitudinal equilibrium, launching. Prerequisite: Mechanical Engineering 5. (Not offered in 1950-51.)
- SECOND GROUP
- 101-2 *Advanced Ship Calculations* (2-2)  
Stabilizing, model basin practice, powering, steering, launching, hull strength, floodability, vibrations. Prerequisite: Mechanical Engineering 16. (Not offered in 1950-51.)
- 103-4 *Ship Design* (2-2)  
Prerequisite: Mechanical Engineering 10, 16. Prerequisite or concurrent registration: Mechanical Engineering 117. Drafting-room fee, \$3 a term. (Not offered in 1950-51.)
- 111-12 *Thermodynamics* (3-3) Cruickshanks, Kohloss, Bernstein  
With introductory study of laws of heat transmission. Prerequisite: Mechanical Engineering 14; Physics 8. Prerequisite or concurrent registration: Mathematics 20. Morning and evening sections. (Also offered 1950 summer term.)
- 115-16 *Mechanical Laboratory* (2-2) Greeley  
Calibration of instruments; calorimetry; testing of prime movers, auxiliaries, and combustion engines. Eight-hour boiler test required. Prerequisite: Mechanical Engineering 13-14 and 111-12. Prerequisite or concurrent registration: Mechanical Engineering 129. Laboratory fee, \$6 a term. Laboratory (6 hours)—afternoon and evening sections.
- 117-18 *Marine Engines and Auxiliaries* (2-2)  
Details, arrangements and performance of steam uniflow, steam turbine, and Diesel propelling plants. Prerequisite or concurrent registration: Mechanical Engineering 5, 13-14, and 111-12. (Not offered in 1950-51.)



- 126 *Methods of Manufacture* (2) Greeley  
Fixtures, gauging, tools, costs. Prerequisite: Mechanical Engineering 8 and 14; Civil Engineering 26. Morning and evening sections.
- 127-28 *Machine Design* (2-2) Johnson  
With stress-analysis lectures. Prerequisite: Mechanical Engineering 112 and 126; Civil Engineering 26, 123, 136, and 141. Drafting-room fee, \$3 a term. Computation and drafting (3 hours)—Saturday morning.
- 129-30 *Power Plants* (3-3) Cruickshanks, Justice  
Study of design, layout, installation, and operation of power plants and equipment. Prerequisite: Mechanical Engineering 112. Morning and evening sections.
- 131-32 *Heating, Ventilating, Air Conditioning, and Refrigeration* (2-2) Kohloss  
Prerequisite: Mechanical Engineering 112. Morning and evening sections.
- 133 *Combustion Engines* (2) Greeley  
Prerequisite: Mechanical Engineering 112; Civil Engineering 123 and 136; Electrical Engineering 10. Morning and evening sections.
- 139 *Fluid Dynamics* (3) Johnson, Kelley  
The theories of hydro- and aero-mechanics as influenced by density, viscosity, and turbulence. Prerequisite: Mechanical Engineering 112; Civil Engineering 140. Morning and evening sections.
- 140 *Dynamics of Machinery* (3) Johnson, Michel  
Inertia effects, balancing, vibration phenomena. Prerequisite: Mechanical Engineering 115; Civil Engineering 123 and 136. Morning and evening sections.
- 141-42 *Management Problems* (2-2) Feiker  
Organization of an industrial enterprise; the handling and training of men. Prerequisite: Economics 1-2. Morning and evening sections.
- 145 *Production Control and Planning* (2)  
Scope of production controls, product analysis, planning and routing systems and methods. Prerequisite: Mechanical Engineering 141-42. Evening.
- 146 *Engineering Patent Procedure* (2)  
Nature and purpose of patents, procedures for preparing and filing patent applications, trade marks and design patents, employer-employee relations. Prerequisite: Mechanical Engineering 141-42. Evening.
- 147 *Industrial Labor Relations* (2)  
Prerequisite: Mechanical Engineering 141-42. (Not offered in 1950-51.)
- 189-90 *Proseminar in Mechanical Engineering* (1-1) Johnson  
Saturday morning.



## MEDICINE

- Walter Andrew Bloedorn, A.M., M.D., Sc.D., *Professor of Medicine*  
 Thomas McPherson Brown, A.B., M.D., *Professor of Medicine, Executive Officer*  
 Charles Robert Lee Halley, A.B., M.D., *Clinical Professor of Medicine*  
 Paul Frederick Dickens, M.D., *Clinical Professor of Medicine*  
 Benjamin Frank Miller, B.S., Chem. Eng., M.D., *Clinical Professor of Medicine*  
 Clayton Bernard Ethridge, M.D., *Clinical Professor of Medicine*  
 Sol Katz, B.S., M.D., *Adjunct Clinical Professor of Medicine*  
 Harry Eagle, A.B., M.D., *Adjunct Clinical Professor of Medicine*  
 Louis Katz Alpert, B.S., M.D., *Adjunct Clinical Professor of Medicine*  
 Joseph Francis Fazekas, B.S., M.D., *Adjunct Clinical Professor of Medicine*  
 Clark Harvey Yeager, M.D., Dr.P.H., *Professorial Lecturer on Tropical Medicine*  
 Norman Hawkins Topping, A.B., M.D., *Professorial Lecturer on Rickettsial Diseases*  
 Monroe James Romansky, A.B., M.D., *Associate Professor of Medicine*  
 Peter Diacoumis Comanduras, M.D., M.S., *Associate Clinical Professor of Medicine*  
 Walter Kendall Myers, B.S., M.D., *Assistant Clinical Professor of Medicine*  
 John Alton Reed, A.B., M.D., *Assistant Clinical Professor of Medicine*  
 Theodore Judson Abernethy, B.S., M.D., *Assistant Clinical Professor of Medicine*  
 William Travis Gibb, Jr., A.B., M.D., *Assistant Clinical Professor of Medicine*  
 John McCallum Evans, A.B., M.D., *Assistant Clinical Professor of Medicine*  
 Roy Hertz, Ph.D., M.D., *Assistant Clinical Professor of Medicine*  
 Carl Leonard Larson, B.S., M.D., *Assistant Clinical Professor of Medicine*  
 Carl Calvin Dauer, A.B., M.D., M.P.H., *Assistant Clinical Professor of Medicine*  
 Samuel Ross Taggart, M.D., *Assistant Clinical Professor of Medicine*  
 Alfred Henry Lawton, M.D., Ph.D., *Assistant Clinical Professor of Medicine*  
 Benjamin Manchester, M.D., *Assistant Clinical Professor of Medicine*  
 Irving Wolfe Winik, M.D., *Assistant Clinical Professor of Medicine*



Clarence Richard Hartman, A.B., M.D., *Assistant Clinical Professor of Medicine*

John Minor, A.B., M.D., *Associate in Medicine*

Watson William Eldridge, Jr., M.D., *Associate in Medicine*

Maurice Protas, A.B., M.D., *Associate in Medicine*

Pearl Holly, M.S., M.D., *Associate in Medicine*

Lawrence Jay Thomas, B.S., M.D., *Associate in Medicine*

James Joseph Feffer, A.B., M.D., *Associate in Medicine*

Lawrence Elias Putnam, A.B., M.D., *Associate in Medicine*

John Watkins Trenis, A.B., M.D., *Associate in Medicine*

Bernard Lauriston Hardin, Jr., A.B., M.D., *Associate in Medicine*

Andrew Gabriel Prandoni, B.S., M.D., *Associate in Medicine*

Charles William Ordman, A.B., M.D., *Associate in Medicine*

Ruth Hechler Wichelhausen, M.D., *Associate in Medicine*

Albert David Kistin, A.M., M.D., *Associate in Medicine*

Benjamin Calloway Jones, Jr., M.D., *Associate in Medicine*

Richard Bernard Castell, A.B., M.D., *Associate in Medicine*

Myer Harold Stolar, B.S., M.D., *Associate in Medicine*

Kenneth McLane Smith, A.B., M.D., *Associate in Medicine*

James Edward McCormack, A.B., M.D., *Associate in Medicine*

Sam Thompson Gibson, B.S., M.D., *Associate in Medicine*

Walter Lewis Nalls, B.S., M.D., *Associate in Medicine*

Luther Henry Snyder, A.B., M.D., *Clinical Instructor in Medicine*

Emil Herbert Bauersfeld, A.B., M.D., *Clinical Instructor in Medicine*

John Bayne Marbury, M.D., *Clinical Instructor in Medicine*

Louis Ross, M.D., *Clinical Instructor in Medicine*

James Theodore Burns, M.D., *Clinical Instructor in Medicine*

Frederic Dunbar Chapman, A.B., M.D., C.M., *Clinical Instructor in Medicine*

Irvin Kerlan, B.S., M.D., C.P.H., *Clinical Instructor in Medicine*

Virginia Patterson Beelar, A.B., M.D., *Clinical Instructor in Medicine*

Alfred Brigulio, M.D., *Clinical Instructor in Medicine*

Lester Sylvan Blumenthal, A.B., M.D., M.S. in Med., *Clinical Instructor in Medicine*

Samuel Jacob Nathan Sugar, Phar.G., M.D., *Clinical Instructor in Medicine*

Joseph Ney, B.S., M.D., *Clinical Instructor in Medicine*

Henry Dunlop Ecker, B.S., M.D., *Clinical Instructor in Medicine*

John Wilmer Latimer, Jr., M.D., *Clinical Instructor in Medicine*

Charles Wilson Jones, A.B., M.D., *Clinical Instructor in Medicine*

Halla Brown, M.D., *Clinical Instructor in Medicine*

Frank Solomon Bacon, B.S., M.D., *Clinical Instructor in Medicine*

Joseph Beinstein, A.B., M.D., *Clinical Instructor in Medicine*

William Frank, M.D., *Clinical Instructor in Medicine*



- Stanley William Kirstein, M.D., *Clinical Instructor in Medicine*  
James Walling Long, M.D., *Clinical Instructor in Medicine*  
Ralph Bretney Miller, M.D., *Clinical Instructor in Medicine*  
Raymond Schwartz, A.B., M.D., *Clinical Instructor in Medicine*  
Robert George Taylor, M.D., *Clinical Instructor in Medicine*  
Charles Waters Thompson, M.D., *Clinical Instructor in Medicine*  
Thomas Stone Sappington, A.B., M.D., *Clinical Instructor in Medicine*  
Maurice Franks, M.D., *Clinical Instructor in Medicine*  
Charles Edward Law, M.D., *Clinical Instructor in Medicine*  
Israel Kessler, M.S., M.D., *Clinical Instructor in Medicine*  
Jack Jacob Rheingold, A.B., M.D., *Clinical Instructor in Medicine*  
Francis James Murray, A.B., M.D., *Clinical Instructor in Medicine*  
Robert Lee Brickhouse, B.S., M.D., *Clinical Instructor in Medicine*  
Morris Hirsh Rosenberg, A.B., M.D., *Clinical Instructor in Medicine*  
Hyman Joseph Zimmerman, A.B., M.D., *Clinical Instructor in Medicine*  
Maurice Mensh, M.D., *Clinical Instructor in Medicine*  
Robert Norwood Coale, B.S., M.D., *Clinical Instructor in Medicine*  
Harry Clark Bates, B.S., M.D., *Clinical Instructor in Medicine*  
James Francis Ambury, B.S., M.D., *Clinical Instructor in Medicine*  
William Otis Bailey, Jr., M.D., *Clinical Instructor in Medicine*  
Edwin Pearson Parker III, B.S., M.D., *Clinical Instructor in Medicine*  
Thomas Joseph Pekin, M.D., *Clinical Instructor in Medicine*  
Andrew Joseph Brennan, M.D., *Clinical Instructor in Medicine*  
Eugene Solomon Gladsden, B.S., M.D., *Clinical Instructor in Medicine*  
Jeanne Cecile Bateman, A.B., M.D., *Clinical Instructor in Medicine*  
Richard Lee Whelton, M.D., *Clinical Instructor in Medicine*  
John William Du Chez, M.D., *Clinical Instructor in Medicine*  
Thomas Lees Hartman, A.M., M.D., *Clinical Instructor in Medicine*  
William Raymond Merchant, A.B., M.D., *Clinical Instructor in Medicine*  
Sidney Olansky, B.S., M.D., *Clinical Instructor in Medicine*  
Boris Rabkin, A.B., M.D., *Clinical Instructor in Medicine*  
Morton Harold Rose, M.D., *Clinical Instructor in Medicine*  
George Sharpe, A.B., M.D., *Clinical Instructor in Medicine*  
Irene Gorski Tamagna, M.D., *Clinical Instructor in Medicine*  
Warren Daniel Brill, B.S., M.D., *Clinical Instructor in Medicine*  
Frederick Warren Coe, B.S., M.D., *Clinical Instructor in Medicine*  
Joseph Michael Pisani, A.B., M.D., *Clinical Instructor in Medicine*  
Marvin Fuchs, B.S., M.D., *Clinical Instructor in Medicine*  
Frank Goodnow MacMurray, A.B., M.D., *Clinical Instructor in Medicine*  
Ruth Boschwitz Benedict, M.D., *Clinical Instructor in Medicine*  
Cyril Augustus Schulman, M.D., *Clinical Instructor in Medicine*  
William Jack Weaver, Jr., A.B., M.D., *Clinical Instructor in Medicine*



James Irving Boyd, M.D., *Lecturer in Medicine*  
 Louis Aleck Craig, Jr., A.B., M.D., *Clinical Instructor in Medicine*

- 132 *History of Medicine* The Staff  
 One hour a week.
- 236 *Clinical Microscopy* The Staff  
 Conferences and studies in the clinical application of laboratory examinations of blood, body fluids, exudates, and excreta. Three hours a week.
- 241 *Physical Diagnosis I* The Staff  
 Theoretical considerations of the principles of physical diagnosis. One hour a week.
- 242 *Physical Diagnosis II* The Staff  
 Covers not only theoretical but practical application of principles of physical diagnosis as related to examination of patients. Six hours a week.
- 244 *Introduction to Medicine* The Staff  
 Lectures covering the principles of internal medicine preparatory to clinical studies and training in the inpatient and outpatient services. Four hours a week.
- 320 *Medical Jurisprudence* The Staff  
 Lectures on the legal and ethical rights of physicians, and on the legal problems with which the physician comes in contact. One hour a week for sixteen weeks.
- 325-26 *Clinical Clerkships* The Staff  
 Training with bed patients under individual instruction designed to develop ability in examination of patients and case taking as well as practice in clinical microscopy. Eight weeks.
- 327-28 *Clinical Pathological Conferences I* Brown, Choisser  
 Required in the third year. Correlation of clinical and post-mortem findings: detailed case description from the clinical point of view followed by demonstrations of post-mortem findings. One hour a week.
- 339-40 *Therapeutic Conferences I* Staff of Medicine and Pharmacology  
 Conferences designed to emphasize the application of pharmacological principles to the problems of clinical medicine. One hour a week.
- 349-50 *Medical Conferences* The Staff  
 Two hours a week.
- 421-22 *Outpatient Clinics* The Staff  
 Individual case studies under personal supervision of the Staff. Daily clinics on current medical problems and seminars stressing physiological aspects of diseases. Individual examinations and instruction in medical specialties. University and Emergency hospitals. Eight weeks.



- 423-24 *Clinical Clerkship* The Staff  
Available at the University, Emergency, Mt. Alto, and Walter Reed hospitals. Eight weeks.
- 427-28 *Clinical Pathological Conferences II* Brown, Choisser  
Required in the fourth year. Continuation of 327-28. One hour a week, in rotation.
- 439-40 *Therapeutic Conferences II* Staff of Medicine and Pharmacology  
Continuation of 339-40. One hour a week.



## MILITARY SCIENCE AND TACTICS \*

Joseph Augustine Connor, Jr., M.D., Major, Medical Corps, United States Army, *Professor of Military Science and Tactics, Executive Officer*

### 129-30 *Elementary Course, Senior Division ROTC* Connor (First Year)

World situation, national defense, and ROTC (3); military obligations of citizenship (1); organization of the Army (10); organization of the Medical Department (5); courtesies and customs of the Service (2); military law (4); military training (2); medical military history (1); military administration (3); examination and discussion (1).

### 247-48 *Elementary Course, Senior Division ROTC* Connor (Second Year)

World situation, national defense, and ROTC (3); organization and employment of medical service of field army (5); duties of the surgeon (3); medical service, zone of communications (3); medical service, zone of interior (3); medical supply (3); introduction to map reading (4); health and national security (2); first aid, bandaging, and splinting (5); examination and discussion (1).

### 329-30 *Advanced Course, Senior Division ROTC* ‡ Connor (First Year)

World situation, national defense, and ROTC (3); military preventive medicine (20); field medicine and surgery (6); army graduate professional education program (1); army career (1); examination and discussion (1).

### 429-30 *Advanced Course, Senior Division ROTC* ‡ Connor (Second Year)

World situation, national defense, and ROTC (3); military preventive medicine (11); medical aspects of atomic warfare (2); medical aspects of chemical warfare (2); military psychiatry (5); personnel management (3); military medical research development (3); organized reserve corps (1); mobilization (1); examination and discussion (1).

\* Figures in parenthesis indicate the number of hours devoted to the subject.  
‡ Students in the advanced course are selected from those who satisfactorily complete the elementary course, or have one year active federal service.



## NEUROLOGY AND NEUROLOGICAL SURGERY

Walter Freeman, Ph.D., M.D., *Professor of Neurology, Executive Officer*

James Winston Watts, B.S., M.D., *Professor of Neurological Surgery*

Hyman David Shapiro, M.D., *Associate Clinical Professor of Neurology*

Robert Henry Groh, B.S., M.D., *Assistant Clinical Professor of Neurology*

Paul Chodoff, A.B., M.D., *Associate in Neurology*

James Peter Murphy, B.S., M.D., *Associate in Neurological Surgery*

George Davis Weickhardt, M.D., *Clinical Instructor in Neurology*

Hugo Victor Rizzoli, A.B., M.D., *Clinical Instructor in Neurological Surgery*

Jonathan Marshall Williams, M.D., *Clinical Instructor in Neurological Surgery*

Oscar Legault, A.B., M.D., *Clinical Instructor in Neurology*

John William Kemble, A.B., M.D., *Clinical Instructor in Neurology*

Marion Ballard Richmond, B.S., M.D., *Clinical Instructor in Neurology*

249-50 *Neurology (elective)* Freeman

Methods of study of the nervous system. Gross and microscopic preparations, embryology, comparative anatomy, stimulation and extirpation, human pathology, etc. Laboratory demonstrations. One hour a week.

331 *Neurology* Shapiro and Staff

Systematic lectures with lantern slides, illustrating the chief neurologic syndromes and their anatomic bases. One hour a week.

333-34 *Neurology and Neurological Surgery, Clinical Clerkship* Freeman and Staff

Instruction in history, physical examination, ordinary clinical procedures. Attendance at neurological operations. Gallinger Hospital. Four students in rotation, two weeks.

335-36 *Neurological Conference* Freeman and Staff

Clinical conference one afternoon a week followed by clinicopathologic study of specimens from current necropsies. Gallinger Hospital. Two and one-half hours a week.

431-32 *Neurology Clinic* Shapiro and Staff

Neurological outpatient clinic. Consultation of staff on ambulatory cases, demonstration of diagnostic procedures, disposition of neuropsychiatric cases. Discussion of neuropathologic material. University Hospital. Two hours a week.

433-34 *Neurosurgery* Watts and Staff

Clinical demonstrations in surgery of the brain, spinal cord, and peripheral nerves. Emphasis is laid upon fundamentals and upon the possibilities of surgery in the relief of symptoms. University and Gallinger hospitals. Section of four students, two hours a week.



## OBSTETRICS AND GYNECOLOGY

- John Parks, M.S., M.D., *Professor of Obstetrics and Gynecology, Executive Officer*
- Radford Brown, M.D., *Clinical Professor of Obstetrics and Gynecology*
- Jacob Kotz, M.D., *Clinical Professor of Obstetrics and Gynecology*
- Henry Lauran Darner, A.B., M.D., *Clinical Professor of Obstetrics and Gynecology*
- Herbert Percy Ramsey, A.B., M.D., *Clinical Professor of Obstetrics and Gynecology*
- Robert Henry Barter, M.D., *Associate Professor of Obstetrics and Gynecology*
- George Nordlinger, A.B., M.D., *Associate Clinical Professor of Obstetrics and Gynecology*
- Laurence Lee Cockerille, M.D., *Assistant Clinical Professor of Obstetrics and Gynecology*
- Samuel Mayer Dodek, A.M., M.D., *Assistant Clinical Professor of Obstetrics and Gynecology*
- Clayton Howard Hixson, M.D., *Associate in Obstetrics and Gynecology*
- Henry John Russell McNitt, B.S. in Med., M.D., *Associate in Obstetrics and Gynecology*
- Russel Jon Jansen, M.D., *Associate in Obstetrics and Gynecology*
- Howard Pope Parker, A.B., M.D., *Associate in Obstetrics and Gynecology*
- Roger O'Donnell, Jr., A.B., M.D., *Associate in Obstetrics and Gynecology*
- James Albert Dusbabek, M.D., *Associate in Obstetrics and Gynecology*
- Barton Winters Richwine, M.D., *Associate in Obstetrics and Gynecology*
- Clarence Kendall Fraser, Ph.B., M.D., *Associate in Obstetrics and Gynecology*
- Katherine Elizabeth Parker, A.M., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- William Dandridge Terrell, Jr., M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Samuel Hazen Shea, M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Julius Robert Epstein, M.D., *Clinical Instructor in Obstetrics and Gynecology*
- Morton Selwyn Kaufman, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*



- Floyd Sterling Rogers, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Neel Jack Price, B.S., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Rufus Martin Roll, A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Caroline Jackson, A.M., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Jeremiah Keith Cromer, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Jed Williams Pearson, Jr., A.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Thomas Miles Leonard, Ph.B., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 William Thurston Lady, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Albert Seymour Bright, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Shirley Sue Martin, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Charles Henry Nash, Jr., M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Roland Essig Bieren, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Alexander Le Sueur Russell, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Donald Walters, M.D., *Clinical Instructor in Obstetrics and Gynecology*  
 Thomas Ashton Wilson, M.D., *Clinical Instructor in Obstetrics and Gynecology*

- 54 *Normal Obstetrics* Fraser, Dodek  
 Lectures and demonstrations on the physiology and management of normal pregnancy. One hour a week.
- 337-38 *Abnormal Obstetrics* Nordlinger, Parks  
 Lectures and demonstrations on the complications of pregnancy. One hour a week.
- 343 *Gynecology* Brown  
 Lectures and demonstrations on the principles of gynecology. One hour a week.
- 344 *Marriage and Marital Problems* Ramsey, Nordlinger  
 A course of instruction in marriage counseling and planned parenthood. One hour a week.



348 *Female Endocrinology and Operative Gynecology*

Kotz, Darner

Lectures on the physiology and pathology of the female endocrine system and on principles of gynecological surgery. One hour a week.

401-2 *Manikin Demonstrations*

Lady

The mechanism of labor and various types of operative delivery demonstrated to sections of the class in weekly sessions.

441-42 *Clinical Obstetrics*

Parks and Staff

Senior students participate in prenatal and postnatal clinic care; make postpartum home calls; observe the course of labor and deliver patients under supervision; attend biweekly departmental conferences and daily ward rounds in the University and Gallinger hospitals.

443-44 *Clinical Gynecology*

Parks and Staff

Senior students observe and participate in the gynecological work of clinics, operating rooms, and gynecological services of the University and Gallinger hospitals.



## OPHTHALMOLOGY

Ronald Atmore Cox, A.B., M.D., *Professor of Ophthalmology, Executive Officer*

Ernest Alfred Watson Sheppard, M.D., C.M., *Clinical Professor of Ophthalmology*

Richard Wallace Wilkinson, M.S., M.D., *Associate in Ophthalmology*

Sterling Bockoven, M.D., *Associate in Ophthalmology*

Walter Joseph Romejko, M.D., *Clinical Instructor in Ophthalmology*

Carmon Robert Naples, B.S., M.D., *Clinical Instructor in Ophthalmology*

Micollus Noel Stow, M.D., D.M.S., *Clinical Instructor in Ophthalmology*

James Spencer Dryden, M.D., *Clinical Instructor in Ophthalmology*

William Paxson Chalfant, Jr., M.D., *Clinical Instructor in Ophthalmology*

William Joseph Graham Davis, A.B., M.D., *Clinical Instructor in Ophthalmology*

### 351-52 *Ophthalmology*

The Staff

A lecture course presenting the principles of ophthalmology, with special reference to topics of importance to the general practitioner. One hour a week for sixteen weeks.

### 447 *Clinic*

The Staff

During medical outpatient service, each student is given individual instruction in the ophthalmological aspects of systemic disease.



## OTO-RHINO-LARYNGOLOGY

- Daniel Bruce Moffett, A.B., M.D., *Professor of Oto-rhino-laryngology, Executive Officer*  
 William Herndon Jenkins, M.D., *Clinical Professor of Oto-rhino-laryngology*  
 Leroy Lee Sawyer, Jr., A.B., M.D., *Assistant Clinical Professor of Oto-rhino-laryngology*  
 David Davis, A.B., M.D., *Associate in Oto-rhino-laryngology*  
 Aubrey David Fischer, M.D., *Associate in Oto-rhino-laryngology*  
 Joel Norton Novick, M.S., M.D., *Clinical Instructor in Oto-rhino-laryngology*  
 Catharine Birch, A.B., M.D., *Clinical Instructor in Oto-rhino-laryngology*  
 Homer King Vann, A.B., M.D., *Clinical Instructor in Oto-rhino-laryngology*  
 James Jerry McFarland, Jr., B.S., M.D., *Clinical Instructor in Oto-rhino-laryngology*  
 Thomas Frasier Williams, M.D., *Clinical Instructor in Oto-rhino-laryngology*  
 Edward Clifford Jennings, B.S., M.D., *Clinical Instructor in Oto-rhino-laryngology*

### 451 *Oto-rhino-laryngology*

Moffett, Jenkins

Lectures and demonstrations on anatomy, physiology, and diseases of the ear, nose, and throat. One hour a week.

### 454 *Bronchoscopy*

Davis

A series of lectures on the fundamental principles and the use of instruments, including both the bronchoscope and esophagoscope. One hour a week for two weeks.

### 456 *Clinic*

The Staff

Practical clinical instruction in the diagnosis and treatment of diseases of the ear, nose, and throat. University Hospital. One and one-half hours twice a week.



## PATHOLOGY

Roger Morrison Choisser, B.S., M.D., *Professor of Pathology, Executive Officer*  
 Thomas Martin Peery, A.B., M.D., *Professor of Pathology*  
 Carl Hunt Wells, B.S., M.D., *Associate Professor of Pathology*  
 Robert Pelley Hill, B.S., M.D., *Assistant Professor of Pathology*

### SEMINAR LECTURERS

Elson Bowman Helwig, B.S., M.D., *Professorial Lecturer in Pathology*  
 Hans Frank Smetana, M.D., *Professorial Lecturer in Pathology*  
 Henry Rappaport, M.D., *Professorial Lecturer in Pathology*  
 James Earle Ash, Jr., M.D., *Professorial Lecturer in Pathology*  
 Elizabeth Maplesden Ramsey, A.B., M.D., *Professorial Lecturer in Pathology*

#### 259-60 *Pathology*

Choisser and Staff

Malformations, inflammations, degenerations, and neoplasms; special pathology of the organs and specific diseases. The laboratory work consists of the gross and microscopic study of diseased tissues. Necropsies are held regularly at the University and Gallinger hospitals.

#### 307 *Necropsy (elective)*

The Staff

Students assist in the performance of necropsies. Fresh gross specimens and microscopic sections from each case are presented at weekly conferences. Current literature relating to cases is reviewed and presented by the students.

#### 327-28 *Clinical Pathological Conference*

Choisser, Brown

Required in the third and fourth years. Case histories are presented and discussed by members of the staff and student body; necropsy and clinical findings are compared, and gross and microscopic specimens examined. One hour a week.

#### 460 *Research*

Choisser

Hours and credits to be arranged.



## PEDIATRICS

- Preston Alexander McLendon, B.S., M.D., *Professor of Pediatrics, Executive Officer*
- Margaret Mary Nicholson, A.B., M.D., *Clinical Professor of Pediatrics*
- Edward Lewis, M.D., *Clinical Professor of Pediatrics*
- William Staton Anderson, A.B., M.D., *Clinical Professor of Pediatrics*
- Lewis Kaigler Sweet, A.B., M.D., *Adjunct Clinical Professor of Pediatrics*
- Mabel Harlakenden Grosvenor, A.B., M.D., *Assistant Clinical Professor of Pediatrics*
- John Augustine Washington, A.B., B.S., M.D., *Assistant Clinical Professor of Pediatrics*
- Aaron Nimetz, A.B., M.D., *Assistant Clinical Professor of Pediatrics*
- Dorothy Steidle Jaeger-Lee, M.D., *Assistant Clinical Professor of Pediatrics*
- George Maksim, M.D., M.S. in Ped., *Assistant Clinical Professor of Pediatrics*
- Reginald Spencer Lourie, M.D., *Associate in Pediatrics—Psychiatry*
- William Allen Howard, A.B., M.D., *Associate in Pediatrics*
- John Phillip McGovern, B.S., M.D., *Associate in Pediatrics*
- John Howell Peacock, B.S., M.D., *Clinical Instructor in Pediatrics*
- Herbert Harold Diamond, M.D., *Clinical Instructor in Pediatrics*
- Reginald Henry Mitchell, M.D., *Clinical Instructor in Pediatrics*
- Maynard Irving Cohen, A.B., M.D., *Clinical Instructor in Pediatrics*
- Mary Katherine Laurence Sartwell, A.B., M.D., *Clinical Instructor in Pediatrics*
- Sydney Ross, M.D., *Clinical Instructor in Pediatrics*
- Charles Frederick Stiegler, A.B., M.D., *Clinical Instructor in Pediatrics*
- Hugh Gambel Clark, A.B., M.D., *Clinical Instructor in Pediatrics*
- Herbert Dudley Glick, B.M., M.D., *Clinical Instructor in Pediatrics*

### 256 *Pediatrics*

McLendon and Staff

Lectures on physiology of the newborn, development, infant nutrition, diseases of the newborn, common anomalies and system illnesses of childhood. Medical School. Two hours a week.

### 357-58 *Clinical Clerkship—General Pediatrics*

Nicholson and Staff

General pediatric diseases and the newborn. Emphasis on history taking and physical examination. Daily ward rounds. Gallinger Municipal Hospital. Five students in rotation, two weeks.



- 359-60 *Clinical Clerkship—Contagious Diseases* Grosvenor and Staff  
Preventive and quarantine measures. Daily ward rounds and conferences. Gallinger Municipal Hospital. Five students in rotation, two weeks.
- 361-62 *Clinical Conference* McLendon and Staff  
Required in third year. Presentation and discussion of current patient problems. Gallinger Municipal Hospital. One hour a week.
- 365 *Clinical Conference I* McLendon and Staff  
Required in the third year. Staff and student discussion of diagnosis and management. Medical School. One hour a week.
- 457-58 *Clinical Clerkship* McLendon and Staff  
Full time including assignment to night and holiday admissions. Case studies on wards under direct Resident supervision. Ward rounds with Staff and Residents. Childrens Hospital. Twelve students, six weeks.
- 459-60 *Outpatient Clinics* Washington and Staff  
Work in Medical and Specialty clinics including surgery, allergy, X-ray, child welfare, cardiology, dermatology, neurology, and child guidance. Childrens Hospital.
- 461-62 *Clinico-pathological Conference* McLendon and Staff  
Clinical and pathological discussion of recent patient history and laboratory data. Childrens Hospital.
- 463-64 *Group Conferences* McLendon and Staff  
Discussion of clinical problems of diagnosis and treatment of current patients. Childrens Hospital. Twice a week.
- 465 *Clinical Conference II* McLendon and Staff  
Required in the fourth year. Case presentation by fourth-year students. Staff and student discussion of diagnosis and management. Medical School. One hour a week.



## PHARMACOLOGY

Paul Kenneth Smith, Ph.D., *Professor of Pharmacology, Executive Officer*

Erwin Ellis Nelson, M.D., Ph.D., *Adjunct Clinical Professor of Pharmacology*

Hugh Hackland Darby, Ph.D., *Research Professor of Biophysics*

Murray Finkelstein, Ph.D., *Assistant Professor of Pharmacology*

Edward Alpen, Ph.D., *Assistant Professor of Pharmacology*

261 *Pharmacology* The Staff  
Lectures and conferences concerning the interaction of drugs and biological systems as a basis for the rational therapy of disease. Five hours a week.

263 *Pharmacology Laboratory* The Staff  
Laboratory instruction and demonstrations designed to complement the above course. Five hours a week.

265 *Chemotherapy* The Staff  
Five lectures a week for three weeks. Designed for graduate students.

361-62 *Pharmacological Research* The Staff  
Primarily for those properly qualified graduate and medical students seeking careers in pharmacology. Hours and credits to be arranged.

363-64 *Pharmacology Seminar (I-I)* The Staff  
Recent advances in pharmacology. For those interested in pharmacological research. Two hours a week.

369-70 *Clinical Pharmacology* The Staff  
Discussions of the pharmacological basis of therapeutics. One hour a week.

479-80 *Special Methods in Research* The Staff  
A course to familiarize the student with advanced chemical and physiological methods employed in pharmacological investigations. Hours and credits to be arranged.



## PHARMACY

- Charles Watson Bliven, M.S., *Professor of Pharmacy, Executive Officer*  
 William Paul Briggs, M.S., Sc.D., *Professorial Lecturer in Pharmacy*  
 Jane Gass, M.S., *Assistant Professor of Pharmacology and Pharmacognosy*  
 Salvatore Joseph Greco, Ph.D., *Assistant Professor of Pharmacy*  
 John Watson Schermerhorn, Ph.D., *Assistant Professor of Pharmaceutical Chemistry*  
 Carson Gray Frailey, A.B., LL.B., *Lecturer on Pharmaceutical Law*  
 Harold Jerome Bobys, A.B., C.P.A., *Lecturer on Pharmaceutical Administration*  
 David Lucian Rice, B.S. in Phar., *Instructor in Hospital Pharmacy*  
 Carmel Miriam Snow, B.S. in Phar., *Instructor in Hospital Pharmacy*

### SEMINAR LECTURERS

- James Johnson Durrett, M.S., Phar.G., M.D., *Professorial Lecturer on Drug Control Problems*  
 Carson Peter Frailey, Phar.D., Sc.D., *Professorial Lecturer on Industrial Pharmacy*  
 Frederick John Cullen, Phar.G., M.D., *Professorial Lecturer on Drug Manufacture*  
 James Albert Horton, LL.B., *Professorial Lecturer on Drug Trade Regulations*  
 John Christian Krantz, Jr., Ph.D., *Professorial Lecturer on Pharmaceutical Research*  
 Justin Lawrence Powers, Ph.D., *Professorial Lecturer on Official Drug Standards*  
 Robert Lee Swain, Phar.D., LL.B., *Professorial Lecturer on Contemporary Pharmacy*  
 George Potter Larrick, *Professorial Lecturer on Drug Control*  
 Robert Philip Fischelis, B.S., Phar.D., Sc.D., *Professorial Lecturer on Pharmaceutical Organizations*

*Minimum requirements for the degrees.—See pages 123–24.*

### FIRST GROUP

#### 2 Orientation in Pharmacy (1)

Bliven

A general survey of the field of pharmacy; organizations in the health professions; official compendia. Morning.



- 21-22 *General Pharmacy* (5-5) Greco, Schermerhorn  
Essential pharmaceutical processes; the theory and manufacture of pharmacopoeial and formulary galenical and inorganic chemical preparations; the pharmaceutical usage of certain classes of substances and preparations. Laboratory fee, \$12 a term. Lecture (3 hours)—morning; laboratory (6 hours)—afternoon.
- 23 *Pharmacognosy* (3) Gass  
Macroscopic and microscopic. Prerequisite: Botany 1. Laboratory fee, \$7. Lecture (2 hours)—afternoon; laboratory (3 hours)—afternoon.
- 24 *History, Literature, and Ethics of Pharmacy* Briggs  
(1)  
The development of the profession of pharmacy and the literature of pharmacy. Morning.
- 25 *Pharmaceutical Calculations* (3) Bliven  
The system of weights and measures and their application in the practice of pharmacy. Morning.

## SECOND GROUP

- 102 *Dispensing Pharmacy* (4) Greco  
Compounding of typical prescriptions and a study of incompatibilities. Prerequisite: Pharmacy 22; concurrent registration: Pharmacy 110. Laboratory fee, \$12. Lecture (2 hours)—afternoon; laboratory (6 hours)—afternoon.
- 103 *Dispensing Pharmacy* (4) Greco  
Continuation of Pharmacy 102. Laboratory fee, \$12. Lecture (2 hours); laboratory (6 hours)—afternoon.
- 105-6 *Pharmacology I* (2-2) Gass  
The general principles of pharmacology; locally acting drugs; chemotherapeutic agents; antibiotics; antianemia drugs; endocrine drugs; vitamins. Prerequisite or concurrent registration: Physiology 115. Morning.
- 107 *Pharmacy Accounting* (3) Bobys  
The financial records required in the operation of a pharmacy. Morning.
- 110 *Chemistry and Pharmacy of Medicinal Products* (3) Schermerhorn  
A study of the chemistry, structural relationship to action, and uses of the official and important non-official synthetic and natural organic medicinal compounds. Prerequisite or concurrent registration: Chemistry 152. Morning.
- 111 *Chemistry and Pharmacy of Medicinal Products* (3) Schermerhorn  
A continuation of Pharmacy 110, including laboratory work on the syntheses, chemical and physical properties, and incompatibilities of important organic medicinal products. Laboratory fee, \$12. Lecture (2 hours)—morning; laboratory (3 hours)—afternoon.



- 151 *Advanced Pharmacognosy I* (3) Gass  
Microscopic. Prerequisite: Pharmacy 23. Laboratory fee, \$12. Time to be arranged.
- 165-66 *Pharmacology II* (3-3) Gass  
Drugs acting on the central nervous system, the autonomic nervous system, and on specific tissues; toxicology; diagnostic drugs; biological assays. Prerequisite: Physiology 115 and 117; Pharmacy 106. Pharmacy 166, laboratory fee, \$12. Fall term: morning. Winter term: lecture (2 hours)—morning; laboratory (3 hours)—afternoon.
- 167-68 *Pharmacology III* (3-3) Gass  
Laboratory work in pharmacological technique. Prerequisite: Pharmacy 106. Prerequisite or concurrent registration: Pharmacy 165. Laboratory fee, \$12 a term. Time to be arranged.
- 172 *Advanced Dispensing Pharmacy* (3) Greco  
The study of special problems in dispensing pharmacy. Prerequisite: Pharmacy 103. Laboratory fee, \$12. Time to be arranged.
- 173 *Quantitative Pharmaceutical Analysis* (3) Schermerhorn, Bliven  
Drug analysis. Prerequisite: Chemistry 22. Laboratory fee, \$12. Lecture (1 hour); laboratory (6 hours). Time to be arranged.
- 176 *Pharmaceutical Law* (2) C. G. Frailey  
Morning.
- 178 *Pharmacy Management* (3) Briggs  
Policies and operations relating to the management of a pharmacy. Morning.
- 182 *Advanced Pharmacology I* (2) Gass  
Special problems in the field of pharmacology. Prerequisite or concurrent registration: Pharmacy 166. Time to be arranged.
- 188 *Survey* (1) The Staff  
A symposium covering the various phases of pharmacy. Morning.
- 192 *Hospital Pharmacy* (2) Rice, Snow  
Organization and function of hospitals; organization and operation of a hospital pharmacy; professional and sickroom supplies; prescription practice in the University Hospital pharmacy. Prerequisite: Pharmacy 103. Lecture (1 hour)—morning; laboratory (3 hours)—time to be arranged.
- 194 *Manufacturing Pharmacy* (3) Rice, Snow  
The manufacture of bulk pharmaceuticals in the University Hospital pharmacy. Elective for seniors. Lecture (1 hour)—afternoon; laboratory (6 hours)—time to be arranged.



## THIRD GROUP \*

- 201-2 *Survey of Pharmaceutical Literature* (1-1)  
Assigned library research on the development of pharmaceutical literature.
- 203-4 *Special Problems in General Pharmacy* (2-2)  
Investigations of problems involved in the manufacture of pharmaceutical preparations on a laboratory scale. Laboratory fee, \$12 a term.
- 206 *Pharmaceutical Technology* (4)  
A study of advanced manufacturing pharmacy, including formula development for the different types of preparations. Laboratory fee, \$12. Lecture (2 hours); laboratory (6 hours).
- 215-16 *Advanced Pharmacology II* (3-3)  
Special studies on biological assay methods. Laboratory fee, \$12 a term. Lecture (1 hour); laboratory (6 hours).
- 221-22 *Chemistry of Naturally Occurring Organic Medicinal Products* (5-5)  
A study of the isolation, chemistry, and relationship between the constitution and physiologic action of alkaloids, fats and sterols, terpenes, carbohydrates, glycosides, and the various biological products. Laboratory fee, \$12 a term. Lecture (3 hours); laboratory (6 hours).
- 223-24 *Chemistry of Synthetic Organic Medicinal Products* (5-5)  
A study of the chemistry and relationship between the structure and physiologic action of hydrocarbons and their derivatives, nitrogen compounds, oxygen compounds, sulfur compounds, and organo-metallic compounds. Laboratory fee, \$12 a term. Lecture (3 hours); laboratory (6 hours).
- 225 *Determination of Physical Constants* (2)  
A laboratory and lecture study of the determination of physical constants of medicinal products. Laboratory fee, \$12. Lecture (1 hour); laboratory (3 hours).
- 227 *Food and Drug Analysis* (4)  
A study of the composition of some common foods and food products. Laboratory fee, \$12. Lecture (2 hours); laboratory (6 hours).
- 231 *Pharmacology of Anesthetic Drugs* (4)  
Theoretical consideration of the principles of anesthesiology and laboratory study of the action of anesthetic drugs. Laboratory fee, \$12.
- 234 *Pharmacology of Autonomic Drugs* (4)  
A study of action and interaction of drugs principally influencing the autonomic nervous system. Laboratory fee, \$12.

\* The graduate courses, which are listed in the third group, will not be offered until September 1951.



- 236 *Experimental Toxicology* (4)  
Pharmacological action of toxic drugs correlated with chemical and pathological studies. Laboratory fee, \$12.
- 251-52 *Graduate Seminar* (1-1)  
Current problems and trends in pharmacy. Required of all students registered for the Master's degree.
- 295-96 *Research* (arr.)  
Investigations of special problems in the major field of study. Credits and fees to be arranged.
- 299-300 *Thesis* (3-3)  
Laboratory fee, \$14 a term.



## PHILOSOPHY

Charles Edward Gauss, Mus.B., Ph.D., *Elton Professor of Philosophy*,  
Executive Officer

Mary Carman Rose, Ph.D., *Instructor in Philosophy*

*The major in Philosophy (Field-of-Study).*—The major provides an opportunity for the student to become acquainted with the history and fields of philosophy and with the methods of philosophical analysis. For details see the pamphlet, which is available in the Office of the Dean of Columbian College, or consult the Executive Officer of the Department.

*Requirements for the Master's degree.*—In addition to the requirements for the Bachelor's degree with a major in Philosophy the following courses are prerequisite to candidacy: Philosophy 111-12, 113, 121-22, 131. For the Master's degree the following courses are required: Philosophy 201 or 202, 211-12, 213-14, and 216. A reading knowledge examination in either French or German must be passed before the second half of the work is started.

### FIRST GROUP

- 51-52 *Introduction to Philosophy* (3-3) The Staff  
A critical introduction to the problems of modern philosophy in relation to scientific and social developments since the Renaissance. Morning and evening sections. (Also offered 1950 summer term.)

### SECOND GROUP

- 111-12 *History of Philosophy* (3-3) Rose  
History of western philosophy from Thales to Kant. Morning. (Also offered 1950 summer term.)
- 113 *History of Nineteenth and Twentieth Century Philosophy* (3) Gauss  
Continuation of Philosophy 111-12. Prerequisite: Philosophy 111-12. 1950-51 and alternate years, evening.
- 121-22 *Logic and Scientific Method* (3-3) Rose  
The study of formal logic and the means of investigation and description employed in the sciences; theory of scientific inference and prediction. Morning. (Also offered 1950 summer term.)
- 131 *Ethics* (3) Rose  
An examination of ethical theories, the relation of ethics to social science and psychology. Evening.
- 142 *Metaphysics* (3) Rose  
The problems of metaphysics in the light of their development in contemporary forms. 1950-51 and alternate years, evening.



- 162 *Aesthetics* (3) Gauss  
The problems of appreciation and judgment in the arts, and of theories of the process of artistic creation. Emphasis on contemporary arts and criticism. 1950-51 and alternate years, morning.
- 171-72 *American Philosophy* (3-3) Gauss  
A general history of philosophy in the United States and its relation to European thought. Evening.
- 180 *Philosophy of History* (3) Gauss  
Problems of historical knowledge and explanation. Critique of philosophies of history. 1951-52 and alternate years.
- 193 *Topics in Contemporary Philosophy* (3) Gauss  
Intensive study of selected topic of moment. 1951-52 and alternate years.
- 199-200 *Proseminar: Readings for the Major* (3-3) The Staff  
Conferences and group discussions. Time to be arranged.

## THIRD GROUP

- 201-2 *Readings and Research* (3-3) The Staff  
Advanced readings and reports. Investigation of special problems. Time to be arranged.
- 211-12 *Seminar in Plato and Aristotle* (3-3) The Staff  
1950-51 and alternate years, evening.
- 213-14 *Seminar in Seventeenth Century Philosophy* (3-3) The Staff  
1951-52 and alternate years.
- 216 *Seminar in Kant* (3) The Staff  
1951-52 and alternate years.
- 299-300 *Thesis* (3-3) The Staff



## PHYSICAL EDUCATION FOR MEN \*

William Henry Myers, A.M., *Professor of Physical Education for Men, Executive Officer*

Cecil Wentworth Morgan, Ph.D., *Professorial Lecturer in Physical Education*

Joseph Henry Krupa, M.S., *Associate Professor of Physical Education for Men*

Raymond George Hanken, B.S. in P.E., *Assistant Professor of Physical Education for Men*

Vincent James DeAngelis, B.S. in P.E., A.M. in Ed., *Assistant Professor of Physical Education for Men*

Ralph Waldo Foster, A.M., *Lecturer in Physical Education*

William Jennings Reinhart, B.B.A., *Associate in Physical Education for Men*

John Howell Rowland, LL.B., *Associate in Physical Education for Men*

Eugene Hugh Sherman, Sr., B.S., *Associate in Physical Education for Men*

This Department includes all the recognized athletic activities of the men students of the University.

Two years of physical education (Physical Education 1-2 and 11-12) are required of all men for graduation, except those students exempt under the regulations stated on page 39.

Upon entering the University, all freshmen or other undergraduate students who have not fulfilled the physical education requirement are given a medical examination. Assignments for medical examinations will be given at the time of registration. The students who satisfy the requirements of the medical examination are then given a physical efficiency test in the general bodily skills of agility, endurance, and strength; and in swimming. If the physical efficiency test is passed, the student may elect from the following list of activities:

Setting-up Exercises (stretching exercises)

Body Building Exercises (gymnastic apparatus and weight lifting skills)

Competitive Exercises (modified games and sports)

Swimming Exercises (distance, speed, and life saving)

If the physical efficiency test is not passed, the student will be assigned to a class for training in the above activities in the order listed.

The Department furnishes gymnasium uniforms and personal equipment upon a small payment.

*Minimum requirements for the Single Major and Subject-Certification Teacher's Course.*—See pages 130-131 and 132.

*Minimum requirements for the Single-Major Teacher's Course.*—See pages 130-31 and 133.

\* The University is not responsible for injuries received in intercollegiate or intramural games, or in any of the activities of the departments of physical education.



*Minimum requirements for the Physical Education and Recreation Course.*—See pages 130-32 and 133.

*Minimum requirements for the minor.*—Prerequisite: Physical Education 43-44, 47, 49, and 58. Required: twelve credit hours of second-group courses in Physical Education, including 103, 113 or 114, and 138.

#### FIRST GROUP

- 1-2 *Freshman Physical Education\** (2-2) The Staff  
Four periods of supervised activity a week. Locker and towel fee, ‡ \$2 a term. Assignment for activities and time to be arranged.
- 11-12 *Sophomore Physical Education\** (2-2) The Staff  
Four periods of supervised activity a week. Locker and towel fee, ‡ \$2 a term. Assignment for activities and time to be arranged.
- 43-44 *Techniques of Physical Education Motor Activities* (2-2) The Staff  
Fundamental skills, rules, and organization. Locker and towel fee, ‡ \$2 a term. Morning and afternoon sections.
- 45-46 *Methods of Teaching Physical Education Activities for Secondary Schools I* (2-2) The Staff  
Methods and materials for teaching (1) recreational dance—folk, square, and social dance; (2) individual and dual sports—tennis, golf, archery, swimming, badminton, bowling. Locker and towel fee, ‡ \$2 a term. Afternoon.
- 47 *Introduction to Physical Education* (2) Myers  
An orientation course presenting the problems of physical education, vocational analysis, scientific foundations, and scope of field. Morning.
- 48 *Introduction to Recreation* (2) Myers  
The role of recreation in modern living; current practices in community recreation work; standards of training, experience, and salary; types of leadership needed. Time to be arranged.
- 49 *Human Anatomy* (3) Tate  
The structure of the human body. Basic course for physical education majors. Also open to both men and women not majoring in physical education. Prerequisite: Biology 1-2 or Zoology 1-2. Morning.
- 50 *Kinesiology* (3) Tate  
A study of the anatomical mechanism of movement, analysis of the action of muscles in physical education activities. Prerequisite: an approved course in anatomy. Morning.
- 51-52 *Physical Education in the Elementary School* (2-2)  
Physical growth and development of the child and adolescent. Survey of age characteristics and organization of physical education activities

\* Freshmen and sophomores in the School of Engineering and the School of Pharmacy are required to take two, instead of four, periods of physical education a week for which they receive one, instead of two, credits a term.

‡ The locker and towel fee is required for registration in one or more of the activity courses.



for the various age levels in elementary school, playground, and settlement house programs. Methods and materials in tumbling, games, rhythms, and self-testing activities. Afternoon.

58 *First Aid and Care of Athletic Injuries* (2) Myers, Lawrence

Prevention and emergency care of injuries of all types, with special reference to first aid, bandaging, and massage. A practical course. Prerequisite: Biology 1-2 or Zoology 1-2. Afternoon.

SECOND GROUP

103 *History and Principles of Physical Education* (3) Atwell  
Survey of history as it relates to contemporary physical education. Study of aims, objectives, and philosophy of physical education. Morning.

105-6 *Corrective Physical Education and Physical Examinations* (3-3) Lawrence

Cause and correction of faulty body mechanics, physical examination methods for the diagnosis of postural defects, prescription of exercises and program adaptation. Prerequisite: Biology 1-2 or Zoology 1-2. Morning.

109-10 *Leadership Organization in the Intramural Program* (2-2) Krupa

Principles of administration, organization, and supervision of intramural activities in the physical education program of the junior high school, senior high school, and college. Afternoon.

113-14 *Methods and Practice in Teaching Physical Education Activities* (2-2) The Staff

Principles and methods applied to learning and teaching physical education activities. Supervised laboratory. Morning and afternoon sections.

115-16 *Methods of Teaching Physical Education Activities for Secondary Schools II* (2-2) The Staff

Locker and towel fee,\* \$2 a term. Section A (women): modern dance; team sports—field hockey, basketball, softball, soccer, speedball, volleyball. Afternoon. Section B (men): Sports—football, basketball, baseball, track and field. Afternoon.

121 *School and Community Health Programs* (3) \_\_\_\_\_

Health services, healthful environment, health instruction, sources of material for general health knowledge. Prerequisite: Biology 1-2 or Zoology 1-2. Morning.

122 *Methods and Materials of Health Education* (3) \_\_\_\_\_

Organization and presentation of health materials for each age level. Prerequisite: Biology 1-2 or Zoology 1-2. Morning.

\* The locker and towel fee is required for registration in one or more of the activity courses.



- 131 *Tests and Measurements in Physical Education* (3) Atwell  
Critical survey of tests in physical activities, methods of test construction, elementary statistics. Morning.
- 132 *Camp Leadership* (1) \_\_\_\_\_  
Survey course in camp counseling. Afternoon.
- 133-34 *Observation and Practice Teaching* (3-3) Atwell, Myers  
Assignments are made to schools in Washington and the vicinity. Practice teaching fee, \$8 a credit hour. Time to be arranged.
- 136 *Survey of Dance History and Dance Forms* (3) Burtner  
The development of dance from primitive ritual to present day recreational and art forms of the dance. Includes ethnologic dance, practice and discussion of fundamental movement techniques and composition. Evening.
- 138 *Organization and Administration of Physical Education* (3) Atwell, Myers  
Organization and administration of physical education programs in elementary and secondary schools and in colleges. Study of plants, fields, equipment, and programs. Morning.
- 151-52 *Group Leadership Activities I* (3-3)  
Fall term: groups and their significance, group work principles and methods, professional and volunteer leaders, organization and development programs. Winter term: application to social-recreational activities. 1951-52 and alternate years, evening.
- 153-54 *Group Leadership Activities II* (3-3) Foster  
Fall term: organization and direction of physical recreation programs. Winter term: organization and direction of special recreational activities, such as arts and crafts, dramatics, group singing, and nature walks. 1950-51 and alternate years, evening.
- 161 *Community Organization for Recreation* (3) Brightbill  
Resources, principles, and methods in organizing community recreation services. Evening.
- 162 *Administration and Supervision of Recreation* (3) Brightbill  
Factors and problems in administering recreation including surveys, legislation, program, area, facilities, leadership, finance, and public relations. Evening.

## THIRD GROUP

- 211 *Problems in Physical Education* (3) Morgan  
For experienced teachers. Organization, supervision, and curriculum problems growing out of current issues; program planning policies; competition. 1950-51 and alternate years, evening.



220 *Problems in Health Education* (3)

Health needs; policies and program planning; use of community resources; promising practices in the field. 1950-51 and alternate years, evening.

231 *Evaluation in Physical Education* (3)

Phillips

Planning the evaluation program; review of outcomes; analysis of tests and standards; administration and interpretation of tests; guidance. 1951-52 and alternate years, evening.

240 *Physical Education for the Atypical* (3)

Morgan

Adaptations of activities to meet the special needs of students with physical disabilities resulting from such conditions as postural deviations, cardiac irregularities, operations, and poliomyelitis. 1951-52 and alternate years, evening.



## PHYSICAL EDUCATION FOR WOMEN \*

Ruth Harriet Atwell, A.M., *Professor of Physical Education for Women, Executive Officer*

Bernath Eugene Phillips, Ph.D., *Professorial Lecturer in Physical Education*

Helen Bennett Lawrence, A.M., *Associate Professor of Physical Education for Women*

Elizabeth Burtner, A.M., *Associate Professor of Physical Education for Women*

Marjorie Tate, A.M., *Assistant Professor of Physical Education for Women*

Charles Kestner Brightbill, M.B.A., *Lecturer in Physical Education*

Nancy Rupp, B.S., *Instructor in Physical Education for Women*

Helen Taylor Harris, A.M., *Associate in Physical Education for Women*

Louise Packer Seager, *Associate in Physical Education for Women*

Two years of physical education (Physical Education 1-2 and 11-12) are required of all women for graduation, except of students exempt under the regulations stated on page 39. In the fall a complete medical and physical examination is given each student for the purpose of discovering individual needs. Those students whose examinations indicate the desirability of remedial or restricted activity are assigned to a program especially adapted to their needs. This limited program includes moderate sports and individual exercises in small groups under careful supervision.

The required costume for physical education classes may be purchased at the Cooperative Store.

*Minimum requirements for the major.*—For the first two years in Junior College see page 59. For the last two years in the School of Education see pages 133-34. Students desiring to prepare themselves to teach another subject in addition to physical education may do so by choosing their elective hours in one subject-matter field with the advice of the Dean of the School of Education.

### FIRST GROUP

#### 1-2 *Freshman Physical Education (1-1)*

The Staff

One period of fundamentals of health, physical education, and recreation, and two periods of activity a week.

Fundamentals of health, physical education, and recreation; study of the factors involved in the maintenance of health and in the efficient use of the body, and practice in activities adapted for leisure time. Morning and afternoon sections.

Activities: riding, field hockey, folk and square dance, modern dance, bowling, ice skating, roller skating, basketball, badminton,

\* The University is not responsible for injuries received in intercollegiate or intramural games, or in any of the activities of the departments of physical education.



individual body mechanics, swimming, tennis, softball, archery, golf, canoeing. Locker and towel fee,\* \$2 a term. Morning and afternoon sections.

11-12 *Sophomore Physical Education (1-1)* The Staff

Activities: same as Physical Education 1-2. Locker and towel fee,\* \$2 a term. Two periods a week; morning and afternoon sections.

43-44 *Techniques of Physical Education Motor Activities (2-2)* The Staff

Fundamental skills, rules, and organization. Locker and towel fee\* \$2 a term. Morning and afternoon sections.

45-46 *Methods of Teaching Physical Education Activities for Secondary Schools I (2-2)* The Staff

Methods and materials for teaching (1) recreational dance—folk, square, and social dance; (2) individual and dual sports—tennis, golf, archery, swimming, badminton, bowling. Locker and towel fee\* \$2 a term. Afternoon.

47 *Introduction to Physical Education (2)* Myers

An orientation course presenting the problems of physical education, vocational analysis, scientific foundations, and scope of field. Morning.

48 *Introduction to Recreation (2)* Myers

The role of recreation in modern living; current practices in community recreation work; standards of training, experience, and salary; types of leadership. Time to be arranged.

49 *Human Anatomy (3)* Tate

The structure of the human body. Basic course for physical education majors. Also open to both men and women not majoring in physical education. Prerequisite: Biology 1-2 or Zoology 1-2. Morning.

50 *Kinesiology (3)* Tate

A study of the anatomical mechanism of movement, analysis of the action of muscles in physical education activities. Prerequisite: an approved course in anatomy. Morning.

51-52 *Physical Education in the Elementary School (2-2)*

Physical growth and development of the child and adolescent. Survey of age characteristics and organization of physical education activities for the various age levels in elementary school, playground, and settlement house programs. Methods and materials of tumbling, games, rhythms, and self-testing activities. Afternoon.

58 *First Aid and Care of Athletic Injuries (2)* Myers, Lawrence

Prevention and emergency care of injuries of all types, with special reference to first aid, bandaging, and massage. A practical course. Prerequisite: Biology 1-2 or Zoology 1-2. Afternoon.

\* The locker and towel fee is required for registration in one or more of the activity courses.



## SECOND GROUP

- 103 *History and Principles of Physical Education* (3) Atwell  
Survey of history as it relates to contemporary physical education. Study of aims, objectives, and philosophy of physical education. Morning.
- 105-6 *Corrective Physical Education and Physical Examinations* (3-3) Lawrence  
Cause and correction of faulty body mechanics, physical examination methods for the diagnosis of postural defects, prescription of exercises and program adaptation. Prerequisite: Biology 1-2 or Zoology 1-2. Morning.
- 109-10 *Leadership Organization in the Intramural Program* (2-2) Krupa  
Principles of administration, organization, and supervision of intramural activities in the physical education program of the junior high school, senior high school, and college. Afternoon.
- 113-14 *Methods and Practice in Teaching Physical Education Activities* (2-2) The Staff  
Principles and methods applied to learning and teaching physical education activities. Supervised laboratory. Morning and afternoon sections.
- 115-16 *Methods of Teaching Physical Education Activities for Secondary Schools II* (2-2) The Staff  
Section A (women): modern dance; team sports—field hockey, basketball, softball, soccer, speedball, volleyball. Afternoon. Section B (men): Sports—football, basketball, baseball, track and field. Locker and towel fee\* \$2 a term. Afternoon.
- 121 *School and Community Health Programs* (3) \_\_\_\_\_  
Health services, healthful environment, health instruction, sources of material for general health knowledge. Prerequisite: Biology 1-2 or Zoology 1-2. Morning.
- 122 *Methods and Materials of Health Education* (3) \_\_\_\_\_  
Organization and presentation of health materials for each age level. Prerequisite: Biology 1-2 or Zoology 1-2. Morning.
- 131 *Tests and Measurements in Physical Education* (3) Atwell  
Critical survey of tests in physical activities, methods of test construction, elementary statistics. Morning.
- 132 *Camp Leadership* (1) \_\_\_\_\_  
Survey course in camp counseling. Afternoon.

\* The locker and towel fee is required for registration in one or more of the activity courses.



- 133-34 *Observation and Practice Teaching* Atwell, Myers  
(3-3)

Assignments are made to schools in Washington and the vicinity. Practice teaching fee, \$8 a credit hour. Time to be arranged.

- 136 *Survey of Dance History and Dance Forms* Burtner  
(3)

The development of dance from primitive ritual to present day recreational and art forms of the dance. Includes ethnologic dance, practice and discussion of fundamental movement techniques and composition. Evening.

- 138 *Organization and Administration of Physical Education* Atwell, Myers  
(3)

Organization and administration of physical education programs in elementary and secondary schools and in colleges. Study of plants, fields, equipment, and program. Morning.

- 151-52 *Group Leadership Activities I* (3-3)

Fall term: groups and their significance, group work principles and methods, professional and volunteer leaders, organization and development programs. Winter term: application to social and recreational activities. 1951-52 and alternate years, evening.

- 153-54 *Group Leadership Activities II* (3-3) Foster

Fall term: organization and direction of physical recreation programs. Winter term: organization and direction of special recreational activities, such as arts and crafts, dramatics, group singing, and nature walks. 1950-51 and alternate years, evening.

- 161 *Community Organization for Recreation* Brightbill  
(3)

Resources, principles, and methods in organizing community recreation services. Evening.

- 162 *Administration and Supervision of Recreation* Brightbill  
(3)

Factors and problems in administering recreation including surveys, legislation, program, area, facilities, leadership, finance, and public relations. Evening.

### THIRD GROUP

- 211 *Problems in Physical Education* (3) Morgan

For experienced teachers. Organization, supervision, and curriculum problems growing out of current issues; program planning policies; competition. 1950-51 and alternate years, evening.

- 220 *Problems in Health Education* (3)

Health needs, policies and program planning, use of community resources, promising practices in the field. 1950-51 and alternate years, evening.



- 231 *Evaluation in Physical Education* (3) Phillips  
Planning the evaluation program, review of outcomes, analysis of tests and standards, administration and interpretation of tests, guidance. 1951-52 and alternate years, evening.
- 240 *Physical Education for the Atypical* (3) Morgan  
Adaptations of activities to meet the special needs of students with physical disabilities resulting from such conditions as postural deviations, cardiac irregularities, operations, and poliomyelitis. 1951-52 and alternate years, evening.
- 101 *Community Organization for Recreation* (3) Brightbill  
Resources, principles and methods in organizing community recreation services. Evening.
- 102 *Administration and Supervision of Recreation* (3) Brightbill  
Factors and problems in administering recreation including surveys, legislation, program and facilities, leadership, finance, and public relations. Evening.
- 151-52 *Group Leadership Activities I* (1-2) Foster  
Fall term: organization and direction of physical recreation programs. Winter term: organization and direction of special recreation activities such as art and crafts, dramatics, young people, and nature walks. 1951-52 and alternate years, evening.
- 153-54 *Group Leadership Activities II* (1-2) Foster  
Fall term: organization and direction of physical recreation programs. Winter term: organization and direction of special recreation activities such as art and crafts, dramatics, young people, and nature walks. 1951-52 and alternate years, evening.
- 251 *Problem in Physical Education* (3) Morgan  
For experienced teachers. Organization, supervision and curriculum problems growing out of current research program planning points for comparison. 1951-52 and alternate years, evening.
- 252 *Problem in Health Education* (3) Morgan  
Health needs, policies and program planning. Use of community resources, promoting practices in the field. 1951-52 and alternate years, evening.



## PHYSICAL MEDICINE

Charles Samuel Wise, B.S., M.D., *Professor of Physical Medicine, Executive Officer*

Alvin Knudson, B.S., M.D., *Associate in Physical Medicine*

Jasper Wayne McFarland, B.S., M.D., *Clinical Instructor in Physical Medicine*

Dorothy Emily Voss, Ed.B., R.P.T.T., *Assistant in Physical Medicine*

Marjorie Ionta, B.S., *Assistant in Physical Medicine*

### 150 *Elements of Physical Medicine*

The Staff

In arrangement with the Anatomy Department, lectures and demonstrations of the various tests and measurements are employed in the evaluation of physical disability. Emphasis is placed on normal and abnormal peripheral nerve testing (electrodiagnosis), muscle testing, joint range, and other physical disability measurements.

### 351-52 *Advanced Physical Medicine*

The Staff

Lectures and demonstrations concerning the various techniques, clinical applications of physical medicine, and rehabilitation to be integrated with the teaching of the associated medical and surgical specialties.

### 467-68 *Clinical Studies*

The Staff

Clinical teaching and demonstration at the University Hospital.

### 485 *Research*

The Staff

Hours to be arranged.



## PHYSICS

Thomas Benjamin Brown, Ph.D., *Professor of Physics, Executive Officer*

Walter Lynn Cheney, Ph.D., *Professor of Physics*

George Antony Gamow, Physics D., *Professor of Theoretical Physics*

David Bulkley Langmuir, Ph.D., *Professorial Lecturer in Physics*

George Martin Koehl, A.M., *Associate Professor of Physics*

Robert Randal Meijer, Ph.D., *Associate Professor of Physics*

\_\_\_\_\_, *Assistant Professor of Physics*

Arthur Castner Christman, Jr., M.S., *Instructor in Physics*

Jean McQuiston Coover, A.M., in Ed., *Instructor in Physics*

William Franklin Heckert, B.S., *Instructor in Physics*

Charles Ravitsky, M.S. in Ed., *Associate in Physics*

Albert Prentice Kenyon, A.M., *Associate in Physics*

Philip Krupen, A.M., *Associate in Physics*

John Newell Tevis, A.M., *Associate in Physics*

DeWitt Fisher, A.M., *Associate in Physics*

Walter Louis Asling, A.M., *Associate in Physics*

*The major in Physics (Departmental).*—Prerequisite: Physics 6, 7, 8, and 55; Chemistry 21; Mathematics 19 and 20. Required for the Bachelor of Arts degree: Physics 101, 102, 105, 106, 113-14, and 155 or 156; Mathematics 132. Required for Bachelor of Science degree: same as for the Bachelor of Arts degree, plus Mathematics 171.

### FIRST GROUP

#### 5 *General Physics* (3)

Koehl and Staff

Introduction to the scientific method as used in the study of energy and forces; physical properties of solids, liquids, and gases; phenomena of heat and light. Prerequisite: high school algebra and plane geometry. Material fee, \$6. Lecture (1 hour); recitation (1 hour); laboratory (2½ hours). Morning, afternoon, and evening sections. (Also offered 1950 summer term.)

Physics 5x—same as Physics 5, but offered winter term. Lecture (1 hour)—morning and evening sections; recitation (1 hour)—morning, afternoon, and evening sections; laboratory (2½ hours)—morning, afternoon, and evening sections.

#### 6 *General Physics* (3)

Cheney and Staff

Mechanics, wave-motion, sound, and optical instruments. Offered winter term. Prerequisite: Physics 5\*; high school algebra and plane geometry. Material fee, \$6. Lecture (1 hour); recitation (1 hour); laboratory (2½ hours). Morning, afternoon, and evening sections. (Also offered 1950 summer term.)

\* This prerequisite may be waived for students who have credit for a high school physics course which included individual laboratory work, providing they pass the qualifying examination given at the dates specified in the University calendar.



7 *General Physics* (3)

Meijer and Staff

Elementary electricity and magnetism. Offered fall term. Prerequisite: Physics 5\*; high school algebra and plane geometry. Material fee, \$6. Lecture (1 hour); recitation (1 hour); laboratory (2½ hours). Morning, afternoon, and evening sections. (Also offered 1950 summer term.)

8 *General Physics* (3)

Meijer and Staff

*Foundations of Modern Physics.*—The experimental evidence concerning light waves and quanta, X-rays, and radiowaves; electrons, protons, and other elementary particles; atomic and molecular structure; and nuclear physics. Prerequisite: Physics 6 and 7. Morning and evening sections. (Also offered 1950 summer term.)

55 *Physical Measurements* (2)

Cheney and Staff

Theory and use of the methods of precise measurement in the several fields of physics. Prerequisite: Physics 6 and 7. Prerequisite or concurrent registration: Mathematics 19. Material fee, \$6. Lecture (1 hour)—afternoon and evening sections; laboratory (2½ hours)—morning, afternoon, and evening sections. (Also offered 1950 summer term.)

## SECOND GROUP

101 *Mechanics* (3)

Koehl

Statics, elasticity, dynamics of solids and fluids, and gravitation. Prerequisite: Physics 6; Mathematics 20. Morning.

102 *Heat and Thermodynamics* (3)

Cheney

Thermometry, calorimetry, heat conduction, the laws of thermodynamics with application to physical systems. Prerequisite: Physics 8; Mathematics 20. Morning.

105 *Principles of Electricity* (3)

Cheney

Fundamental phenomena of electricity and magnetism; circuit theory, including elementary alternating-current circuits, terrestrial magnetism; atmospheric electricity. Prerequisite: Physics 8; Mathematics 20. Evening.

106 *Optics* (3)

Koehl

Geometrical optics; elementary theory of wave motions; interference, diffraction, polarization, and dispersion of light; laws of black-body radiation. Prerequisite: Physics 8; Mathematics 20. Evening. (Also offered 1950 summer term.)

113-14 *Atomic and Molecular Physics* (3-3)

Meijer

Constituent particles of matter, properties of the electron, photoelectric effect, X-rays, elements of the quantum theory, spectra and structure of atoms and molecules, and introduction to statistical physics. Prerequisite: Physics 8; Mathematics 20. Morning and evening sections.

\* This prerequisite may be waived for students who have credit for a high school physics course which included individual laboratory work, providing they pass the qualifying examination given at the dates specified in the University calendar.



- 123 *Nuclear Physics* (3) Gamow  
Radioactivity, nuclear transformations, new particles; astrophysical applications. Prerequisite: Physics 113-14. Evening.
- 124 *Modern Cosmology* (3) Gamow  
Structure of stars; nuclear energy sources of stars; stellar evolution and explosions; Einstein theory of gravitation; relativistic cosmology; expanding universe; origin of galaxies, stars, and planets. Prerequisite: Physics 123; Mathematics 132. Evening.
- 128 *Sound* (3) Cheney  
Production, propagation, and detection of sound waves; vibrations of sounding bodies; acoustic instruments and acoustic measurements. Prerequisite: Physics 8; Mathematics 20. Evening.
- 132 *Electronics* (3) Brown and Staff  
The phenomena of electron emission from solids; the physical properties of electron tubes, and the principles underlying their basic applications. Prerequisite: Physics 8 and 55, and Physics 105 or Electrical Engineering 10. Material fee, \$6. Lecture (2 hours), laboratory (2 hours)—afternoon and evening sections.
- 133 *Electronic Circuits* (3) Brown  
A continuation of Physics 132. Includes basic radiofrequency applications of electron tubes, and special types of tubes such as klystrons, resonators, and magnetrons. Lectures and problems. Prerequisite: Physics 132; Electrical Engineering 107. Evening.
- 155-56 *Advanced Physical Measurements* (3-3) Meijer  
Optional programs of experiments in electricity and magnetism, optics, or atomic physics. Corresponding prerequisites are Physics 105, 106, or 113. In addition, Physics 55 is a general prerequisite. Material fee, \$6. Afternoon and Saturday sections.
- 191 *Principles of Nuclear Piles* (3) Beckerley  
Review of nuclear physics, neutron reactions, fission process, slowing down and diffusion of neutrons, basic pile theory, engineering problems associated with chain-reacting piles. Prerequisite: Physics 8; Mathematics 20.  
Summer term 1950.

## THIRD GROUP

- 211-12 *Classical Physical Theory* (3-3) Langmuir  
Fall term: dynamics of systems of particles and of rigid bodies; generalized coordinates. Winter term: dynamics of elastic bodies and fluids; electromagnetic field theory. Prerequisite: Physics 101, 102, and 105; Mathematics 132 and 171. Evening.
- 213-14 *Electromagnetic Radiation* (3-3) Brown  
Electromagnetic theory as applied to light and radio waves, with especial consideration given to "micro-waves". Prerequisite: Physics 105 and Mathematics 132, or the equivalent. 1951-52 and alternate years.



- 215 *Physics of the Solid State* (3) Meijer  
Theory and experimental techniques connected with the principal properties of the various solid types. Topics to be discussed include the structure of solids, their thermal and mechanical properties, the electronic behavior of metals, semiconductors, etc., and the magnetic and optical properties of solids. Prerequisite: Physics 113-14. Evening.
- 221-22 *Quantum Mechanics* (3-3) Gamow  
Formulation and application of laws holding within the atom, the relation of these laws to those of classical physics. Prerequisite: Physics 113-14 and 211-12. Evening.
- 235 *Electron Dynamics* (2) Langmuir  
Emission of electrons; behavior of electrons in free spaces; behavior in axial fields, as in electron-optics, effects of time variable. Prerequisite: Physics 132; Mathematics 132. (Not offered in 1950-51.)
- 255-56 *Advanced Laboratory* (3-3) Brown  
Special topics. One term of this course is required of all Master's candidates in physics. Not open to undergraduates. Material fee, \$6 a term. Afternoon and Saturday sections.
- 291-92 *Seminar: Recent Developments in Physics* (1-1) Cheney and Staff  
Individual investigations of special problems. All students registered for a Master's degree in physics are expected to attend this seminar during residence for the degree, and to take part in its programs. Credit for participation in the seminar work may be obtained by registering for this course during the last two terms of residence; this credit, however, is based upon the seminar work during the entire period of residence. Alternate weeks, evening.
- 299-300 *Thesis* (3-3) The Staff



## PHYSIOLOGY

Errett Cyril Albritton, A.B., M.D., *Fry Professor of Physiology, Executive Officer*

Chester Elwood Leese, Ph.D., *Professor of Physiology*

Joseph William Still, M.D., M.P.H., *Instructor in Physiology*

Katherine Virginia Greene, A.M., *Instructor in Physiology*

- 115 *Physiology* (3) Leese and Staff  
Lectures for academic students covering the fundamentals of physiology in its various subdivisions. Prerequisites: one year of general science or one term of a biological science. Section A: Tues., Thurs., and Sat., 9:10 A.M.; section B: Tues. and Thurs., 5:10 to 6:25 P.M.
- 117 *Experimental Physiology* (1) The Staff  
Laboratory exercises in the fundamentals of physiology, for academic students. Prerequisite or concurrent registration: Physiology 115 or the equivalent. Material fee, \$12. Sat., 10:10 A.M. to 1:00 P.M.
- 120 *Physiology of Endocrine Activity* (2) Albritton  
The circulatory, metabolic, reproductive, growth, and other adaptations, immediate and long term, accompanying and affecting endocrine activity. May be taken for two credits with additional work. Prerequisite: Physiology 115 or the equivalent. Tues. and Thurs., 5:10 P.M.
- 130 *The Psycho-physiology of Personality* (2) Leese  
Lectures on the genesis and expression of personality, with emphasis on the physiological approach. Prerequisite: Physiology 115 or the equivalent and general psychology. Tues. and Thurs., 6:10 P.M.
- 150 *Advanced Physiology* The Staff  
One hundred physiological lectures and one hundred thirty laboratory hours devoted to the major divisions of the subject. For Medical Students.
- 159-60 *Experimental Method* (1-1) Albritton  
Design of controlled experiments in medical or biological investigation; errors in design; criticism and judgment of evidence; and tests of the statistical significance of experimental results. Sat., 12:00 to 1:00 P.M.
- 169-70 *Problems in Physiology* Albritton and Staff  
Hours and credits to be arranged.
- 179-80 *Physiology Seminar* (1-1) The Staff  
Weekly throughout the year.



- 231 *Advanced Physiology of Circulation and Respiration* (2) Albritton and Staff  
Lectures on blood, heart, circulation, respiration, and acid-base balance. Two hours a week, to be arranged.
- 234 *Advanced Physiology of Nutrition, Metabolism, and Excretion* (2) Steinman and Staff  
Lectures on nutrition, digestion, metabolism, excretion, temperature regulation, and water balance. Two hours a week, to be arranged.
- 236 *Advanced Physiology of the Endocrine Glands and Reproduction* (1) Albritton and Staff  
Lectures on ductless glands, hormones, humoral agents, and reproduction. One hour a week, to be arranged.
- 238 *Advanced Physiology of the Neuro-Muscular System* (2) Leese and Staff  
Lectures on sensory reception, central nervous processes, somatic and visceral motor activity, and the behavior of smooth and striped muscle. Two hours a week, to be arranged.
- 240 *Advanced Experimental Physiology* (3) The Staff  
Laboratory work only. Correlated with the lectures in courses 231-238. Material fee, \$25. Nine hours a week, to be arranged.
- 295-96 *Research* Albritton, Leese, and Staff  
Hours and credits to be arranged.
- 299-300 *Thesis* (3-3) Albritton, Leese



## POLITICAL SCIENCE

- Warren Reed West, Ph.D., *Professor of Political Science*  
 John Albert Tillema, Ph.D., LL.M., S.J.D., *Professor of Political Science*  
 John Withrow Brewer, Ph.D., *Professor of International Law, Executive Officer*  
 William Crane Johnstone, Jr., Ph.D., *Professorial Lecturer in Political Science*  
 Karl Ernest Stromsem, Ph.D., *Professorial Lecturer on Public Administration*  
 Wolfgang Herbert Kraus, Dr. Jur., S.J.D., *Associate Professor of Political Science*  
 Allen Dailey Manvel, A.B., *Lecturer on Public Administration*  
 Fred Latimer Hadsel, Ph.D., *Lecturer in Political Science*  
 William George Torpey, Ph.D., *Lecturer on Public Administration*  
 Floyd Millard Riddick, Ph.D., *Lecturer in Political Science*  
 Thomas Ewing Cotner, Ph.D., *Lecturer in Political Science*  
 Roy Malcolm Melbourne, A.M., *Lecturer in Political Science*  
 Harvey Porter Hall, A.M., *Lecturer in Political Science*  
 Charles Bigelow Stauffacher, A.M., *Lecturer on Public Administration*  
 Jonathan Dayton Stoddart, A.M., *Instructor in Political Science*  
 John Leiper Freeman, Jr., A.M., *Instructor in Political Science*

*Minimum requirements for the major in Political Science (Departmental).—*  
 Prerequisite: Political Science 9-10. Required: Political Science 117-18 and twenty-four credit hours from the following groups distributed as follows: six hours from Group A; six hours from Group B; six hours from Group A, B, or C; six hours from Group A, B, C, or D.

Group A: Political Science 111, 112, 121-22. Group B: Political Science 171, 172, 181-82. Group C: Political Science 115, 116, 124, 141, 151-52, 161-62, 175-76, 191, 194. Group D: Political Science 127, 128, 129, 130.

Students interested in preparing for graduate work in Public Administration will consult the Executive Officer of the Department for modifications of the above requirements.

### FIRST GROUP

- 9-10 *Government of the United States\** (3-3) The Staff  
 Morning and evening sections. (Also offered 1950 summer term.)  
 Political Science 9x—same as Political Science 9, but offered winter term. Morning.  
 Political Science 10x—same as Political Science 10, but offered fall term. Morning.

\* Political Science 9-10 is prerequisite to all second-group courses.



## SECOND GROUP \*

- 111 *The Governments of Europe: England, France, and Switzerland* (3) Kraus  
Morning.
- 112 *The Governments of Europe: Soviet Union, Germany, and Italy* (3) Kraus  
Morning. (Also offered 1950 summer term.)
- 115 *Local Government* (3) Freeman  
Morning.
- 116 *Political Parties* (3) Freeman  
Morning.
- 117-18 *Political Theory* (3-3) Kraus  
Evening. (Also offered 1950 summer term—Political Science 118 (3).)
- 121-22 *The Constitution of the United States* (3-3) West  
Morning.
- 124x *Legislative Organization* (3) Riddick  
Morning.
- 127 *Commercial Law: Contracts, Agency, and Bailments* (3) Tillema  
Morning and evening sections. (Also offered 1950 summer term.)
- 128 *Commercial Law: Negotiable Instruments, Property, Sales, Mortgages* (3) Tillema  
Morning and evening sections. (Also offered 1950 summer term.)
- 129 *Law in Relation to the Form of Business Units* (3) Tillema  
Morning. (Also offered 1950 summer term.)  
Political Science 129x—same as Political Science 129, but offered winter term. Evening.
- 130 *Maritime Law* (3) Tillema  
Morning.
- 141x *The Development of Legal Institutions* (3) Brewer  
Evening
- 151-52 *Public Administration* (3-3) Freeman  
Evening. (Also offered 1950 summer term—Political Science 151 (3).)
- 161-62 *Administrative Law* (3-3) Tillema  
Morning.
- 171 *International Politics* (3) Stoddart  
Morning and evening sections. (Also offered 1950 summer term.)

\* Political Science 9-10 is prerequisite to all second-group courses.



- |         |   |           |
|---------|---|-----------|
| 172     | <i>International Organization: the United Nations</i> (3)                                 | Stoddart  |
|         | Morning and evening sections. (Also offered 1950 summer term.)                            |           |
| 175     | <i>International Politics in the Western Hemisphere</i> (3)                               | Stoddart  |
|         | Morning.  |           |
| 176     | <i>Current Trends in Latin American Politics and Government</i> (3)                       | Stoddart  |
|         | Morning.  |           |
| 181-82  | <i>International Law</i> (3-3)  | Brewer    |
|         | Morning and evening sections. (Also offered 1950 summer term.)                            |           |
| 191     | <i>Government and Politics in the Middle East</i> (3)                                     | Hall      |
|         | Evening.  |           |
| 194     | <i>Far Eastern Politics: Contemporary International Relations in the Pacific Area</i> (3) | Melbourne |
|         | Evening.  |           |
| 199-200 | <i>Proseminar: Readings for International Relations Major</i> (3-3)                       | Stoddart  |
|         | Open only to Columbian College majors in this field. Time to be arranged.                 |           |

## THIRD GROUP

- |        |   |        |
|--------|---|--------|
| 209-10 | <i>Seminar: the Legislative Process</i> (3-3)         | West   |
|        | Evening.  |        |
| 212    | <i>Seminar: Comparative Government</i> (3)            | Kraus  |
|        | Afternoon.  |        |
| 213    | <i>Reading Course in Comparative Government</i> (3)   | Kraus  |
|        | Time to be arranged. (Also offered 1950 summer term.) |        |
| 217    | <i>Seminar: Political Theory</i> (3)                  | Kraus  |
|        | Afternoon.  |        |
| 220    | <i>Reading Course in Political Theory</i> (3)         | Kraus  |
|        | Time to be arranged.                                  |        |
| 226    | <i>Problems of Governmental Reorganization</i> (3)    | Torpey |
|        | Summer term 1950.                                     |        |
| *239   | <i>Seminar: Personnel Administration</i> (3)          | Torpey |
|        | Evening. (Also offered 1950 summer term.)             |        |

\* Primarily for majors in the School of Government.



- \*240 *Seminar: Problems in Personnel Management* (3) Torpey  
Evening.
- \*252 *Budgetary and Financial Administration* (3) Manvel  
Evening.
- \*253 *Staff Functions in Government Administration* (3) Manvel  
Evening.
- \*255 *Seminar: Principles and Problems of Administration* (3) Stauffacher  
Evening.
- \*260 *Seminar: Administration of Major Governmental Programs* (3) Stauffacher  
Evening.
- \*261-62 *Reading and Conference Course in Public Administration* (3-3) Torpey  
Evening.
- \*263-64 *Analysis of Administrative Procedures* (3-3) Stromsem and Staff  
Open only to members of the Internship Program in the School of Government. Time to be arranged.
- 271-72 *Problems in International Politics and Organization* (3-3) Hadsel  
Evening. (Also offered 1950 summer term—Political Science 272 (3).)
- \*273 *Seminar: International Administration* (3) Hadsel  
Evening.
- \*274 *Seminar: Objectives and Methods of Foreign Policy* (3) Schoenfeld  
Evening.
- 277-78 *Seminar: Latin American Politics and Government* (3-3) Cotner  
Evening.
- \*279 *Reading Course in International Affairs* (3) Hadsel  
Time to be arranged.  
Political Science 279x—same as Political Science 279, but offered winter term.
- 281-82 *Seminar: International Law and Relations* (3-3) Brewer  
Afternoon. (Also offered 1950 summer term—Political Science 281 (3).)

\* Primarily for majors in the School of Government.



- 293-94 *Seminar: International Politics and Government in the Pacific Area* (3-3) Johnstone  
(Political Science 294—Evening. Political Science 293 not offered in 1950-51.)
- 295 *Reading Course in Far Eastern Politics and Governments* (3) Johnstone  
Evening.
- 299-300 *Thesis* (3-3) The Staff



## PSYCHIATRY

Winfred Overholser, A.B., M.D., Sc.D., *Professor of Psychiatry, Executive Officer*

Roscoe Willis Hall, Ph.B., M.D., *Clinical Professor of Psychiatry*

Solomon Katzenelbogen, M.D., *Clinical Professor of Psychiatry*

Addison McGuire Duval, M.D., *Clinical Professor of Psychiatry*

Sidney Berman, B.S., M.D., *Assistant Clinical Professor of Psychiatry*

Morris Kleinerman, Ch.D., M.B., *Assistant Clinical Professor of Psychiatry*

Henry Prather Laughlin, B.S., M.D., *Assistant Clinical Professor of Psychiatry*

Marshall deGraffenried Ruffin, B.S., M.D., *Assistant Clinical Professor of Psychiatry*

Leon Yochelson, A.B., M.D., *Assistant Clinical Professor of Psychiatry*

Harriet Elizabeth Twombly, A.B., M.D., *Associate in Psychiatry*

Samuel Alexander Silk, Ph.D., M.D., *Associate in Psychiatry*

Isabelle Virginia Kendig, Ph.D., *Associate in Psychiatry*

Norman Taub, B.S., M.D., *Associate in Psychiatry*

William Green Cushard, M.D., *Associate in Psychiatry*

### 165 *Dynamics of Personality Development* Berman

An orientation course in the anatomical, physiological, and psychological growth and development of personality. Consideration of characteristics of structure, function, and development of the psyche leading to normal behavior as a basis for the study of the pathological. Evaluation of interpersonal relationships. One hour a week.

### 178 *Psychopathology* Hall

Manifestations and understanding of various mental mechanisms and abnormal reaction-types, preceded by history of development of psychopathology and illustrated with case material. One hour a week.

### 266 *Psychiatry* Overholser

History, etiology, symptoms, course, and treatment of the major psychoses with emphasis on the dynamics involving the person as a whole. One hour a week.

### 268 *Demonstration Clinics* Silk, Twombly

Presentation of clinical cases of major mental illnesses and primary behavior disturbances, correlating with Psychiatry 266. Each student examines patients under supervision. Three hours a week. St. Elizabeths Hospital.

### 271 *Psychosomatic Aspects of General Medicine* Katzenelbogen

Somatic disorders of psychogenic origin. The role of personality reactions in functional and organic disorders. One hour a week.



- 324 *Psychoneurosis* Laughlin  
 Etiology, psychopathology, clinical aspects, and treatment of various types of psychoneuroses. One hour a week for twelve weeks. Medical Conference Room, Gallinger Hospital.
- 326 *Psychological Techniques in Psychiatric Practice* Kendig  
 Discussion of psychological concepts and tools available for determination of intellectual level, personality structure, functional impairment, and organic deterioration. One hour a week for four weeks. Medical Conference Room, Gallinger Hospital.
- 331-32 *Clinical Clerkship* Cushard, Taub  
 Under supervision, each student conducts mental and physical examinations of patients, works up and presents his cases for discussion and conclusion. Two-week assignments by section. Gallinger Hospital.
- 431-32 *Clinical Clerkship* Duval, Kleinerman, Laughlin, Ruffin, Yochelson, Pallister  
 Supervised examination, diagnosis, and treatment of ambulatory borderline cases. Conferences for discussion of cases. Clinical application of psychiatric principles to general medical practice is stressed. Three hours twice a week, in rotation. University Hospital Out-patient Psychiatric Clinic.



## PSYCHOLOGY

Mitchell Dreese, Ph.D., *Professor of Educational Psychology*  
 Thelma Hunt, Ph.D., M.D., *Professor of Psychology, Executive Officer*  
 \*Henry Furness Hubbard, Ph.D., *Adjunct Professor of Psychology*  
 Clarence Daniel Leatherman, Ph.D., *Professorial Lecturer in Psychology*  
 Curtis Edward Tuthill, Ph.D., *Associate Professor of Psychology*  
 Willard Edmund Caldwell, Ph.D., *Assistant Professor of Psychology*  
 James Norman Mosél, A.M., *Assistant Professor of Psychology*  
 Ewing Lakin Phillips, Ph.D., *Assistant Professor of Psychology*  
 Bernard Hayman Fox, Ph.D., *Assistant Professor of Psychology*  
 Margaret Ives, Ph.D., *Lecturer in Psychology*  
 Isabelle Virginia Kendig, Ph.D., *Lecturer in Psychology*  
 Edwin Wallace Davis, Ph.D., *Lecturer in Psychology*  
 Clyde Lindley, A.M., *Lecturer in Psychology*  
 Don Carlos Faith, A.M., *Associate in Psychology*  
 Roland Henry Tanck, A.M., *Associate in Psychology*

*Minimum requirements for the major in Psychology (Departmental).—*Prerequisite: Psychology 1, and 2 or 22. Required: twenty-four credit hours in psychology above 2 or 22, including Psychology 29 or 151, 98, 131, 191, and 196; Statistics 53; and Physiology 115 or Psychology 117.

For requirements for graduate degrees, consult the Executive Officer.

### FIRST GROUP

- 1 *General Psychology*† (3) The Staff  
 The fundamental principles underlying human behavior. Morning, afternoon, and evening sections. (Also offered 1950 summer term.)  
 Psychology 1x—same as Psychology 1, but offered winter term.  
 Morning and evening sections.

- 2 *Applied Psychology* (3) Caldwell, Mosél  
 The applications of psychology in business, industry, medicine, law, guidance, education, and social problems. Morning and evening sections. (Also offered 1950 summer term.)  
 Psychology 2x—same as Psychology 2, but offered fall term. Morning and evening sections.

- 22 *Introduction to Educational Psychology* (3) Faith  
 Consideration of individual and group differences, adjustments, and the psychology of learning in relation to education and training. Morning. (Also offered 1950 summer term.)  
 Psychology 22x—same as Psychology 22, but offered fall term. Evening.

\* On leave of absence 1950-51.

† Psychology 1 is prerequisite to all other courses in Psychology.



- 29 *Child Psychology* (3) Phillips  
A genetic approach to the study of the child. Special emphasis is placed on the socialization process, learning, and the child's view of the world. Evening. (Also offered 1950 summer term.)  
Psychology 29x—same as Psychology 29, but offered winter term. Morning.
- 98 *Abnormal Psychology* (3) Hunt, Phillips  
The causes, diagnosis, treatment, and prevention of the various types of maladjustments and mental disorders. Prerequisite: 6 credits in psychology, or 3 credits in psychology and 6 credits in a biological science. Morning. (Also offered 1950 summer term.)  
Psychology 98x—same as Psychology 98, but offered fall term. Morning and evening sections.

## SECOND GROUP \*

- 117 *Physiological Psychology* (3) Fox  
Structure, function, and phylogeny of receptors, nervous system, and effectors as mediators of behavior, including drives, learning, and emotions.  
Summer term 1950.
- 121 *Educational Psychology* (3) Faith  
Advanced course in educational psychology. Open each term on the individual study plan to a limited number of students. Time to be arranged.
- 129 *Introduction to Counseling and Guidance* (3) Dreese  
A survey of the basic principles, techniques, and procedures as applied to vocational, educational, and personal counseling. Evening.
- 131 *Psychological Tests* (3) Hunt  
A survey of psychological tests and their more common uses in business, industry, government, law, medicine, and education. Material fee, \$2.25. Morning. (Also offered 1950 summer term.)  
Psychology 131x—same as Psychology 131, but offered winter term. Evening.
- 144 *Personnel Psychology* (3) Mosé  
The applications of psychology to personnel work in education, business, industry, and government. Afternoon. (Also offered 1950 summer term.)  
Psychology 144x—same as Psychology 144, but offered fall term. Evening.
- 151 *Social Psychology* (3) Tuthill  
The social foundations of attitudes and behavior. Individual adjustment to group situations, such as the family, school, fraternity, and occupation. The psychological bases of race prejudice, nationalism, and war. Morning. (Also offered 1950 summer term.)  
Psychology 151x—same as Psychology 151, but offered winter term. Evening.

\* Six credits in first group courses are prerequisite to all second group courses.



156 *Psychology of Propaganda and Public Opinion* (3)  
Evening.

162x *Comparative Psychology* (3) Caldwell  
A survey of psychological processes in infrahuman organisms, with special emphasis on the evolution of animal behavior from the lowest forms to man. Accompanied by laboratory work. Material fee, \$6. Afternoon.

171 *Psychology of Personality* (3) Caldwell  
Contemporary approaches to the study of personality. Prerequisite: 12 credits in psychology, including Abnormal Psychology. Afternoon and evening sections.

191 *Experimental Psychology* (3) Tuthill  
The application of experimental methods to various psychological problems. Prerequisite: 12 credits in psychology. Material fee, \$6. Afternoon.  
Psychology 191x—same as Psychology 191, but offered winter term. Afternoon and evening sections.

192 *Problems in Experimental Psychology* (3) Tuthill  
Opportunity for work on individual experimental projects. Prerequisite: Psychology 191. Open each term to a small number of students by permission of the instructor. Time to be arranged.

193-94 *Readings in Psychology* (3-3) The Staff  
Supervised readings on specific topics in psychology; with conferences; for undergraduate majors. Open only to seniors with 18 or more credits in psychology with a quality point index of 3.00 or higher. Special permission of staff member under whom course is to be taken is necessary. Time to be arranged. (Also offered 1950 summer term.)

196 *History and Systems of Psychology* (3) Caldwell  
A survey of the contemporary schools of psychology. Prerequisite: 12 credits in psychology. Morning and evening sections. (Also offered 1950 summer term.)

THIRD GROUP \*

201x *Seminar: Advanced General Psychology* (3) Fox  
General review of the field for graduate students with an intensive study of selected problems. Required in all graduate programs. Afternoon and evening sections.

202 *Psychological Research Methods and Procedures* (3) Fox  
Required of all Master of Arts candidates in psychology. Prerequisite:

\* Open only to graduate students with 18 or more credits in psychology, except by special permission of Instructor and Executive Officer of the Department.



sites: Experimental Psychology and Statistics. Afternoon and evening sections.

Psychology 202x—same as Psychology 202, but offered fall term. Evening.

- 205-6 *Field Work in Psychology* (3-3) The Staff  
Supervised field work in agencies providing psychological service. Admission by permission of the Executive Officer of the Department. Time to be arranged. (Also offered 1950 summer term.)

- 207-8 *Readings in Psychology for Graduate Students* (3-3) The Staff  
Supervised readings with conferences on specified topics in psychology. Time to be arranged. (Also offered 1950 summer term.)

- 209x *Seminar: Psychology of Motivation* (3) Fox  
A consideration of various theoretical approaches to the psychology of motivation and systematic concepts and experimental findings deriving from each approach. Afternoon.

- 212 *Seminar: Personality Evaluation by Projective Techniques* (3) Kendig  
Evening.

- 213 *Seminar: Clinical Psychology* (3) Ives  
An intensive study of some problem in the field of clinical psychology. Evening.

- 220 *Seminar: Abnormal Psychology* (3) Hunt  
An intensive study of a selected problem in the field of abnormal psychology. Afternoon.

- 223 *Seminar: Learning* (3) Fox  
Covers theories of learning. Evening. (Also offered 1950 summer term.)

- 225 *Seminar: Mental Hygiene* (3) Phillips  
A survey of the recent literature in social psychology and anthropology as they relate to the impact of society on the mental hygiene of the individual. Individual mental health problems are viewed in terms of the social context in which they occur and are treated. Saturday morning. (Also offered 1950 summer term.)

- 226 *Seminar: Clinical Psychology of Childhood* (3) Phillips  
A survey of children's behavior and personality disorders. Special emphasis is placed on therapy and the techniques of interviewing and testing children. Saturday morning.

- 227 *Seminar: Counseling and Guidance* (3) Dreese  
Recent developments and current problems in vocational, educational, and personal guidance in various types of agencies with particular reference to education. Prerequisite: educational or psychological measurements. Evening. (Also offered 1950 summer term.)



- 228 *Seminar: Techniques of Counseling* (3) Dreese  
Specific types of vocational, educational, and personal counseling problems approached through the case method. Prerequisite: recent previous course in counseling and guidance and familiarity with individual analysis methods. Evening. (Also offered 1950 summer term.)
- 229 *Seminar: Occupational and Educational Information* (3) Davis  
Designed to acquaint vocational and educational counselors with the basic occupational and educational information necessary in counseling. Sources of data and techniques of collecting, analyzing, and disseminating for purposes of guidance. Evening.
- 231 *Test Construction* (3) Hunt  
The principles underlying test construction; statistical techniques in the construction, evaluation, and standardization of psychological, educational, and vocational tests. Prerequisite: a course in tests and measurements and a course in statistics. Evening.
- 232 *Research: Test Construction* (3) Hunt  
Individual projects in construction and evaluation of psychological, educational, or vocational tests. Prerequisite: Psychology 231, open each term on individual study plan to a small number of students by permission of instructor. Time to be arranged.
- 233 *Individual Psychological Testing* (3) Phillips  
Instruction and practice in giving of the Binet test and the Wechsler-Bellevue Test. Emphasis is placed on testing children and adolescents. Prerequisite: an elementary course in tests and measurements. Material fee, \$2.25. Afternoon.  
Psychology 233x—same as Psychology 233, but offered winter term. Afternoon.
- 234 *Seminar: Test Theory* (3) \_\_\_\_\_  
Evening.
- 236 *Seminar: Analysis of the Individual for Purposes of Counseling* (3) Dreese  
A detailed study of individual analysis techniques with practice in handling such methods. Prerequisite: an introductory course in educational or psychological measurements. Evening.
- 242x *Seminar: Psychological Principles of Personnel Management* (3) Leatherman  
A study of the applications of psychology to various personnel procedures, for those interested in either government or industrial personnel work. Prerequisite: Psychology 144 or the equivalent. Evening.
- 244 *Seminar: Job Analysis and Evaluation* (3) Leatherman  
Evening.



- 246x *Seminar: Personnel Measurement Techniques* (3) Mosé  
Detailed consideration of interviews, personal data analysis, tests, ratings and questionnaires in evaluating employability, job proficiency, and worker morale. Afternoon.
- 248 *Seminar: Psychological Market Research* (3) Mosé  
Techniques and results in the analysis of consumer behavior. The measurement of advertising effects, consumer surveys, acceptance testing, product design, forecasting audience response to media. Evening. (Also offered 1950 summer term.)
- 251 *Seminar: Advanced Social Psychology* (3) Tuthill  
Current research and theory in social psychology; group dynamics, ego-involvements, action research, and social interaction theory. Afternoon. (Also offered 1950 summer term.)
- 255x *Seminar: Techniques of Opinion and Attitude Measurement* (3) Tuthill  
Methods of attitude measurement (interviews, questionnaires, scales, polls) as currently used by private and governmental investigators. The place of attitude studies in schools, industry, government, etc. Evening.
- 272x *Seminar: Theories of Personality* (3) Caldwell  
A survey of the various theories of personality, with emphasis upon theoretical problems and methodology in the field of personality study. Evening. (Also offered 1950 summer term.)
- 295-96 *Research in Psychology* (arr.) The Staff  
Individual research by student, carried out under supervision of staff member. Time and credits to be arranged. (Also offered 1950 summer term.)
- 299-300 *Thesis* (3-3) The Staff  
Time to be arranged. (Also offered 1950 summer term.)



## RADIOLOGY

William Woodrow Stanbro., M.D., *Professor of Radiology, Executive Officer*

Solomon Rodney Bersack, M.D., *Associate in Radiology*

Keene Manning Wallace, M.D., *Associate in Radiology*

George Tievsky, M.D., *Clinical Instructor in Radiology*

### 213 *Basic Radiology*

Orientation lectures in X-ray physics.

The Staff

### 341-42 *Radiological Diagnosis*

Lectures in conjunction with the course in Physical Diagnosis.

The Staff

### 358 *Advanced Radiological Diagnosis*

Lectures and discussions.

The Staff

### 449 *Clinical Studies*

Students assigned in rotation on a full-time basis for a specific period to the X-ray Department.

The Staff

### 478 *Research*

Hours to be arranged.

The Staff



## RELIGION

Thomas Archie Stone, Ph.D., *Professorial Lecturer in Religion*  
 Lawrence Daniel Folkemer, Ph.D., *Associate Professor of Religion,  
 Executive Officer*  
 John Walter Beardslee III, A.B., B.D., *Assistant Professor of Religion*  
*Minimum requirements for the major in Religion (Departmental).—Eighteen  
 credit hours beyond first-group courses.*

### FIRST GROUP

- 9 *The Old Testament* (3) Beardslee  
 A historical and literary approach to the study of the books of the Old Testament with special consideration given to the development of religious ideas, institutions, and outstanding personalities. Morning and evening sections.
- 10 *The New Testament* (3) Beardslee  
 A study of the literature of the New Testament from the standpoint of occasion, purpose, dominant ideas, and permanent values. Special consideration given to life in the primitive Christian Church. Morning and evening sections. (Also offered 1950 summer term.)
- 59-60 *History of Religions* (3-3) Folkemer, Beardslee  
 Fall term: primitive and eastern religions—Egyptian religion, Confucianism, Taoism, Buddhism and sects, Hinduism, and Shintoism—considering environment, personalities, religious thought, cultus, ethics, and modern trends. Winter term: Judaism, Christianity, and Islam; analysis of early development, thought, life, institutions, and expansion. Recent issues and trends examined. Morning and evening sections. (Also offered 1950 summer term—Religion 59 (3).)

### SECOND GROUP

- 102 *The Prophets, Their Times and Their Message* (3) Beardslee  
 The development of prophetism in the Old Testament; cultural, economic, psychological, and religious factors in the movement; elements of lasting value in the prophetic teaching. A few of the prophets will be selected for particular study. (Not offered in 1950-51.)
- 103 *The Life and Significance of Jesus* (3) Beardslee  
 A detailed study of the life and teachings of Jesus on the basis of a comparative analysis of the Gospel records; the significance of the message of Jesus for our own times. Morning.
- 104 *The Life and Letters of Paul* (3) Beardslee  
 Greek and Hebrew backgrounds of early Christianity, the Roman world of the first century, religious and social conditions affecting the spread of Christianity, the life and journeys of Paul, Paul's teaching and presentation of the Christian faith, the place of the Pauline epistles in the New Testament. Morning.



- 143 *Philosophy of Religion* (3) Folkemer  
A constructive investigation of the evidences of religious knowledge and experience, the nature of God and man, the problem of evil, freedom of the will, eternal life, the destiny of human society. (Not offered in 1950-51.)
- 151 *History of the Christian Church to the Reformation* (3) Folkemer  
A detailed study of the Christian Church from Apostolic days to the Reformation; relationship between church and state, doctrines, worship, expansion, rise of papacy, monastic movement, and pre-Reformation dissent. Morning.
- 152 *History of the Christian Church Since the Reformation* (3) Beardslee  
The origin and development of Protestantism; the Roman Catholic revival; developments among the Eastern churches; doctrines, worship, expansion, church and state, and relation to modern thought and life in the Continent and Great Britain. Morning.
- 172 *Religion in American Life* (3) Folkemer  
Growth of religious bodies and institutions in American culture; the heritage of religious freedom and diversity, religion and literature, revivalism and education, science and religious thought, divisions and cooperative movements in religion. Morning.
- 185 *Classics of Religious Literature* (3) Folkemer  
A careful study of some of the world's treasures of religious literature from the standpoint of religious message, literary form, and permanent influence. Readings from *Bhagavadgita*; *The Bible*; *The Koran*; *City of God*, Augustine; *Imitation of Christ*, à Kempis; *Praise of Folly*, Erasmus; *Pilgrims Progress*, Bunyan; *Christian Liberty*, Luther, etc. Morning.
- 191-92 *Christian Education in the Church* (3-3) Stone  
Fall term: principles of religious education; factors conditioning Christian growth; functions of family, church, community, and state. Winter term: the unified program of the church; worship, study, and service; developing lay educational leadership; housing and equipment; curriculum construction; evaluation of materials; lesson planning and teaching methods. Evening.



## ROMANCE LANGUAGES AND LITERATURES

Henry Grattan Doyle, A.M., LL.D., Litt.D., *Professor of Romance Languages*

Merle Irving Protzman, Ph.D., *Professor of Romance Languages*

Louis Clark Keating, Ph.D., *Professor of Romance Languages, Executive Officer*

Alan Thomas Deibert, A.M., *Professor of Romance Languages*

Irene Cornwell, Ph.D., *Associate Professor of French*

Antonio Alonso, A.M., *Associate Professor of Spanish*

Carey DeWitt Eldridge, Ph.D., *Assistant Professor of Romance Languages*

Rafael Supervía, Doctor en Derecho, *Assistant Professor of Spanish*

Jacqueline Chevallaz Buhrman, A.M., *Assistant Professor of French*

James Willis Robb, A.B., *Assistant Professor of Romance Languages*

Alberto Vázquez, Ph.D., *Lecturer on Spanish American Literature*

\*Felicia Mary Miller, A.M., *Instructor in Spanish*

Julia Elizabeth Hicks, A.M., *Instructor in Romance Languages*

José Silvado Bueno, A.M., *Associate in Portuguese*

Roberto Daniel Meléndez, A.B., *Associate in Spanish*

*The majors.*—The Department of Romance Languages offers three majors administered under the field-of-study plan, and provides proseminars intended to assist the student in preparing himself for the respective major examinations. These are: (1) a *Major in French Literature* (proseminar: French 199-200); (2) a *Major in Spanish Literature* (proseminar: Spanish 199-200); and (3) a *Major in Spanish American Literature* (proseminar: Spanish 197-98). The members of the staff in charge of the respective proseminars are designated as advisers in the respective fields. In these majors, emphasis will be laid upon the political, social, and cultural background of the literature studied, as well as upon writers and their works. A reasonable proficiency in the spoken language will be required. Majors in Romance Languages are strongly advised to study Latin, a knowledge of which is required for graduate work in most institutions. For further details, see the pamphlet on the subject or consult the Executive Officer of the Department or the appropriate adviser.

### FRENCH

#### FIRST GROUP

#### †1-2 *First-year French* (3-3)

The Staff

For beginners. Grammar, composition, drill in pronunciation, translation of modern French prose. Morning, afternoon, and evening sections. (Also offered 1950 summer term.)

French 1x—same as French 1, but offered winter term. Morning and evening sections.

French 2x—same as French 2, but offered fall term. Morning, afternoon, and evening sections.

\* On leave of absence 1950-51.



- 1-2x *First-year French* (accelerated) (6) The Staff  
Same as French 1-2, but full year given in fall term on an accelerated basis. Morning.
- †3-4 *Second-year French* (3-3) The Staff  
Advanced grammar and composition, reading in modern French prose, oral practice, introduction to French civilization. Prerequisite: French 1-2 or two years of high school French. Morning, afternoon, and evening sections. (Also offered 1950 summer term.)  
French 3x—same as French 3, but offered winter term. Morning and evening sections.  
French 4x—same as French 4, but offered fall term. Morning and evening sections.
- 3x-4 *Second-year French* (accelerated) (6) The Staff  
Same as French 3-4 but full year given in the winter term on an accelerated basis. Morning.
- 51-52 *Survey of French Literature* (3-3) Deibert  
Morning and evening sections.

## SECOND GROUP

French 3-4 or the equivalent is prerequisite to all second-group courses in French. French 51-52 is prerequisite to all second-group courses except French 109-10.

- 109-10 *French Conversation and Composition* (3-3) The Staff  
Morning, afternoon, and evening sections. (Also offered 1950 summer term.)
- 119-20 *French Literature of the Sixteenth Century* Keating  
(3-3)  
Prose, poetry, drama, and memoirs of the French Renaissance; Rabelais, Montaigne, Marot, La Pléiade, etc. Class analysis of texts, collateral reading. Recommended: History 120. 1951-52 and alternate years, evening.
- 121-22 *French Literature of the Seventeenth Century* Protzman  
(3-3)  
History, philosophy, criticism, memoirs, letters, eloquence, drama, fiction, poetry. Class analysis of texts; collateral reading. Morning.
- 123-24 *French Literature of the Eighteenth Century* Deibert  
(3-3)  
History, philosophy, criticism, letters, drama, fiction, poetry, the "salons", the idea of progress, the idea of science. Class analysis of texts, collateral reading, lectures on literature and history. 1951-52 and alternate years, morning.
- 125-26 *French Literature of the Nineteenth Century* Keating  
(3-3)  
Romanticism and realism; fiction, poetry, drama, criticism. Class analysis of texts, collateral reading, lectures on literature and history. 1950-51 and alternate years, evening.



- 127-28 *French Literature of the Twentieth Century* Cornwell  
(3-3)  
Fiction, poetry, drama, criticism. Class analysis of texts, collateral reading, lectures on literature and history. Morning.
- 135 *The Modern Novel in France* (3) Keating  
An intensive study of the characteristic novels of the nineteenth and twentieth centuries. Lectures, collateral readings, class discussion.  
Summer term 1950.
- 136 *The Modern Drama in France* (3) Protzman  
Reading, analysis, and discussion of typical plays and dramatic trends of the nineteenth and twentieth centuries. Lectures, collateral readings, class discussion.  
Summer term 1950.
- 199-200 *Proseminar: Readings for the Major in French Literature* (3-3) Protzman  
Conferences and group discussions. Afternoon.

## THIRD GROUP

- 227-28 *Seminar in Modern French Literature* (3-3) Keating  
Prerequisite: a second-group course in French literature. 1950-51 and alternate years, afternoon.
- 229-30 *Seminar in Classical French Literature* (3-3) Protzman  
Prerequisite: a second-group course in French literature. 1951-52 and alternate years, afternoon.
- †249-50 *Old French* (3-3) Doyle  
Phonology and morphology of Old French, with an outline of its development through Vulgar Latin; survey of French literature to the end of the thirteenth century. Prerequisite: a second-group course in French literature; an elementary knowledge of Latin. (Not offered in 1950-51.)
- †251-52 *Middle French* (3-3) Doyle  
French literature of the fourteenth and fifteenth centuries. Class analysis of texts; collateral reading. Prerequisite: a second-group course in French literature. Knowledge of Old French desirable. (Not offered in 1950-51.)
- 299-300 *Thesis* (3-3) The Staff

## PORTUGUESE

## FIRST GROUP

- †1-2 *First-year Portuguese* (3-3) Bueno  
For beginners. Grammar, composition, drill in pronunciation, translation of modern Portuguese prose. Evening.



†3-4 *Second-year Portuguese* (3-3)

Bueno

Advanced grammar and composition, reading of modern Portuguese prose, oral practice, introduction to Portuguese and Brazilian civilization. Prerequisite: Portuguese 1-2 or the equivalent. Evening.

## SECOND GROUP

127-28 *Portuguese and Brazilian Literature* (2-2)

Evolution of the Portuguese language; outline of the literature of Portugal (fall term) and Brazil (winter term). Lectures, readings, written reports. Conducted in Portuguese. Prerequisite: Portuguese 3-4 or the equivalent. (Not offered in 1950-51.)

## SPANISH

## FIRST GROUP

†1-2 *First-year Spanish* (3-3)

The Staff

For beginners. Grammar, composition, drill in pronunciation, translation of modern Spanish prose. Morning, afternoon, and evening sections. (Also offered 1950 summer term.)

Spanish 1x—same as Spanish 1, but offered winter term. Morning and evening sections.

Spanish 2x—same as Spanish 2, but offered fall term. Morning, afternoon, and evening sections.

1-2x *First-year Spanish* (accelerated) (6)

The Staff

Same as Spanish 1-2, but full year given in fall term on an accelerated basis. Morning.

†3-4 *Second-year Spanish* (3-3)

The Staff

Advanced grammar and composition, reading of modern Spanish prose, oral practice, introduction to Latin American civilization. Prerequisite: Spanish 1-2 or two years of high school Spanish. Morning and evening sections. (Also offered 1950 summer term.)

Spanish 3x—same as Spanish 3, but offered winter term. Morning and evening sections.

Spanish 4x—same as Spanish 4, but offered fall term. Morning and evening sections.

3x-4 *Second-year Spanish* (accelerated) (6)

The Staff

Same as Spanish 3-4, but full year given in winter term on an accelerated basis. Morning.

51-52 *Survey of Spanish Literature* (3-3)

Robb

Morning and evening sections.

## SECOND GROUP

Spanish 3-4 or the equivalent is prerequisite to all second-group courses in Spanish. Spanish 51-52 is prerequisite to all second-group courses except Spanish 109-10.

109-10 *Spanish Conversation and Composition* (3-3)

Alonso and Staff

Morning and evening sections. (Also offered 1950 summer term.)



- 111-12 *Commercial Spanish* (3-3) Meléndez  
Conversation and composition; letterwriting. Acquisition of Spanish vocabulary in a practical commercial context. Evening.
- 121-22 *Spanish Literature of the Golden Age* (3-3) Doyle  
Cervantes, Lope de Vega, Calderón; the classic drama, fiction, the ballad, lyric poetry. Class analysis of texts, collateral reading, lectures on literature and history. 1950-51 and alternate years, morning.
- †123-24 *Cervantes* (3-3) Doyle  
Life and works of Cervantes. The Quixote, the Novelas Ejemplares, and other works. 1951-52 and alternate years, morning.
- 125-26 *Modern Spanish Literature* (3-3) Alonso  
Prose and poetry of the eighteenth and nineteenth centuries. Class analysis of texts, collateral reading, lectures on literature and history. 1950-51, evening. 1951-52, morning.
- 127-28 *Contemporary Spanish Literature* (3-3) Supervía  
Prose and poetry of the latter part of the nineteenth and of the twentieth centuries. Class analysis of texts, collateral reading, lectures on literature and history. 1950-51 and alternate years, morning. 1951-52 and alternate years, evening.
- 131-32 *History of Spanish Civilization* (3-3) Supervía  
The social, artistic, and cultural background of Spanish civilization. Lectures, recitations, and informal discussion. Evening.
- 135 *The Modern Novel in Spain* (3) Supervía  
An intensive study of contemporary novels, novelists, and their backgrounds. Lectures, collateral reading, class discussion.  
Summer term 1950.
- 136 *The Modern Drama in Spain* (3) Alonso  
A study of selected plays with an appreciation of their social and literary significance. Lectures, collateral reading, class discussion.  
Summer term 1950.
- 153-54 *The Modernista Movement in Spanish America* (3-3) Vázquez  
A study of the background, trends, and personalities of this movement. (Not offered in 1950-51.)
- 155-56 *Spanish American Literature to 1880* (3-3) Vázquez  
The literature of Spanish America from the colonial period to the latter part of the nineteenth century. Lectures, collateral reading, reports, and class analysis of important works. Evening.
- 157-58 *Spanish American Literature Since 1880* (3-3) Vázquez  
The literature of Spanish America from 1880 to the contemporary period. Lectures, collateral reading, reports, and class analysis of important works. 1951-52 and alternate years, evening.



- 197-98 *Proseminar: Readings for the Major in Spanish American Literature* (3-3) Vázquez  
Conferences and group discussions. Time to be arranged.

- 199-200 *Proseminar: Readings for the Major in Spanish Literature* (3-3) Alonso  
Conferences and group discussions. Time to be arranged.

## THIRD GROUP

- 225-26 *Seminar in Spanish Literature* (3-3) Alonso  
Prerequisite: a second-group course in Spanish literature. 1951-52 and alternate years. Time to be arranged.

- 227-28 *Seminar in Spanish American Literature* (3-3) Vázquez  
Prerequisite: a second-group course in Spanish American literature. Evening.

- †249-50 *Old Spanish* (3-3) Doyle  
Literature and philology: *Poema del Cid*, *Libro de Buen Amor*, *Conde Lucanor*, etc.; Menéndez Pidal's *Manual elemental de gramática histórica española* and Ford's *Old Spanish Readings*. Prerequisite: a second-group course in Spanish literature; an elementary knowledge of Latin. 1950-51. Time to be arranged.

- 299-300 *Thesis* (3-3) The Staff



## SECRETARIAL STUDIES

Dorothy Helene Veon, Ed.D., *Assistant Professor of Secretarial Studies,*  
*Executive Officer*

June Elizabeth Ayers, A.M., *Associate in Secretarial Studies*

Elizabeth Ann McMahon, A.B., *Associate in Secretarial Studies,*

*Requirements for the degree of Associate in Arts in Secretarial Studies.—See page 61.*

### FIRST GROUP

- 1 *Elementary Typewriting* (2)
Veon, McMahon

Fundamental techniques of typewriting, basic styles of business letters, introduction to tabulation, and preparation of general office forms. Laboratory fee, \$4.50. Afternoon and evening sections.  
Secretarial Studies 1x—same as Secretarial Studies 1, but offered winter term. Evening.
- 2 *Intermediate Typewriting* (2)
Veon, McMahon

The business letter and its arrangement, advanced tabulation, manuscript typing, office forms, stencil cutting, and legal documents. Prerequisite: Secretarial Studies 1 or the equivalent; ability to type accurately at 30 words a minute. Laboratory fee, \$4.50. Afternoon and evening sections.  
Secretarial Studies 2x—same as Secretarial Studies 2, but offered fall term. Evening.
- 11 *Elementary Shorthand and Transcription* (4)
Veon

A study of the principles of Gregg shorthand correlated with dictation and transcription. Minimum dictation speed of 60 words a minute attained. Laboratory fee, \$1.50. Morning and evening sections.
- 12 *Intermediate Shorthand and Transcription* (4)
Veon

Review of the principles of Gregg shorthand dictation and transcription on general and specialized business subjects. Minimum dictation speed of 80 words a minute attained. Prerequisite: Secretarial Studies 11 or the equivalent; ability to take dictation at 60 words a minute. Laboratory fee, \$1.50. Morning and evening sections.
- 15 *Advanced Shorthand, Typewriting, and Transcription* (3)
Ayers

Emphasis on speed and accuracy. Minimum speed of 100 words a minute attained in dictation. Prerequisite: Secretarial Studies 12 or the equivalent; ability to take dictation at 80 words a minute and to transcribe accurately; ability to type 50 words a minute. Laboratory fee, \$1.50. Evening.
- 16 *Secretarial Shorthand, Typewriting, and Transcription* (3)
Ayers

Dictation and transcription involving vocabularies used in specific businesses and professions, with special reference to Medicine and Law.



Minimum dictation speed of 120 words a minute attained. Prerequisite: Secretarial Studies 15 or the equivalent; ability to take dictation at 100 words a minute and to transcribe accurately; ability to type 55 words a minute. Laboratory fee, \$1.50. Evening.

51 *Business Correspondence and Reports* (3) Veon

The technique of communication forms with reference to business letters and reports. Survey and analysis of current business literature. Prerequisite: English 1 and 2. Evening.

54 *Secretarial Practice* (3) Veon

Training in secretarial duties and in the use of secretarial equipment and supplies. Actual office experience involving the taking of dictation and the transcribing of various materials; composing business letters, reports, and other forms; preparing bills, statements, financial forms, and statistical records; modern filing systems. Special adaptation made for medical and legal secretaries. Prerequisite: Secretarial Studies 15 and 51; Accounting 1; or the equivalent. Time to be arranged.



## SOCIOLOGY

Harold Loran Geisert, Ph.D., *Professor of Sociology, Executive Officer*  
 Carr Bartleson Lavell, A.M., *Assistant Professor of Sociology*  
 Kennett William Yeager, Ph.D., *Assistant Professor of Sociology*  
 Henry Davidson Sheldon, Ph.D., *Lecturer in Sociology*

*The major in Sociology (Departmental).*—Prerequisite: Sociology 1 and 2. Required: Sociology 172 and 181 and eighteen hours elective in second and third group courses in sociology or closely related fields or departments, if specifically approved in advance by the Department of Sociology.

For requirements for the Master's degree, consult the Executive Officer.

### FIRST GROUP

- 1-2 *Introductory Sociology\** (3-3) Lavell, Yeager  
 The origin and development of culture, man's social nature, types of groups and institutions, social processes, factors producing social problems, individual and social disorganization. Morning and evening sections. (Also offered 1950 summer term.)  
 Sociology 1x—same as Sociology 1, but offered winter term. Morning.

- 71-72 *The American Community* (3-3) Yeager  
 Fall term: types of rural communities, changing rural social institutions, social processes in rural life. Winter term: growth of cities, study of changing urban community, urban group life and personality, housing and other urban problems. Morning.

### SECOND GROUP

- 123 *Fields of Social Work* (3) Yeager  
 The nature and scope of social work, development of social work programs, function of social case work, social group work, public welfare, community organization and social action. Morning.
- 124 *Social Legislation* (3) Yeager  
 The principles, theories, and techniques of social legislation, relief of poverty, child welfare, housing and city planning, public health and recreation, social insurance. Morning.
- 127 *Community Organization* (3) Geisert  
 The study of social interaction in American communities, factors making for disorganization, community leadership, methods of organizing social forces to meet community needs. Morning. (Also offered 1950 summer term.)
- 131 *Social Institutions* (3)  
 The origin and development of social institutions, basic needs producing institutional forms, structures and functions of principal institutions and their interrelationship. (Not offered in 1950-51.)

\* Sociology 1 is prerequisite to all other courses in Sociology.



- 132 *Marriage* (3) Yeager  
The reasons for marriage, marriage laws, mate selection, courtship, husband-wife relations, factors in marital adjustment, marriage prediction and counseling. Morning. (Also offered 1950 summer term.)
- 133 *The Family* (3) Yeager  
A study of the primitive and modern family, changing functions and roles of the family and its members, factors promoting disorganization, family crises, family reorganization. Morning. (Also offered 1950 summer term.)
- 134 *Child Welfare* (3) Sheldon  
The socialization of the child through the home and other social institutions; the changing status of childhood, dependent and handicapped children, child labor. Evening.
- 135-36 *Crime and Delinquency* (3) Geisert  
The nature and distribution of crime, factors producing criminal behavior, police systems, the criminal and juvenile courts, the prison system, probation and parole. Afternoon.
- 141 *Population Problems* (3) Sheldon  
The composition of population, theories of population growth, quantitative and qualitative differences in population groups, trends in population growth, population policies. Evening.
- 142 *Human Migration* (3) Geisert  
Factors producing population movements, causes and consequences of international migrations, internal population redistribution, effects of selective migration. Morning.
- 151 *Industrial Sociology* (3) Yeager  
Interrelationships of industry and community; sociological analysis of work situation, labor movement, industrial leadership, and morale; and of the aged, ethnic, and woman worker. Evening.
- 162 *Social Change* (3) Yeager  
The effects of technological change on society, nature and theories of social change, factors promoting change; methods of analyzing the social effects of inventions. Evening.
- 164 *Social Control* (3)  
Informal and formal phases of human control; analysis of methods of control used in modern society and the situations in which they occur, policies and techniques of control. (Not offered in 1950-51.)
- 172 *Contemporary Social Theory* (3) Geisert  
A systematic study of the important schools of contemporary sociology, including recent European as well as American developments, and an evaluation of the scientific contribution of each school. Evening.
- 181 *Methods of Social Research* (3) Geisert  
An analysis of social research techniques and the scientific method; the application of the case study, social survey, statistical, sociometric, and experimental methods to social data. Evening.



## THIRD GROUP

- 221 *Seminar: Current Trends in Sociology* (3) Geisert  
An analysis and evaluation of the contributions of specific American sociologists to the development and refinement of social concepts, methodological techniques, and social theory. Evening.
- 225 *Seminar: Social Relations* (3)  
The elements of social relations, types of social identification, forms of collective behavior, the sociative and dissociative elements in social process, organization of social relations, institutions, groups, societies. (Not offered in 1950-51.)
- 226 *Seminar: Social Structure* (3) Geisert  
General characteristics of social structure, the role of custom in determining forms of structure, analysis of status by types: age, sex, vocational, social classes and castes, personal and categorical relations. Evening.
- 295-96 *Research* The Staff  
Time and credits to be arranged.
- 299-300 *Thesis* (3-3) The Staff



## SPEECH

\*Lubin Poe Leggette, A.M., *Associate Professor of Speech, Executive Officer*

George Francis Henigan, Jr., Ph.M., *Associate Professor of Speech, Acting Executive Officer*

\*Calvin Weir Pettit, Ph.M., *Assistant Professor of Speech*

Edwin Lockwood Stevens, A.M., *Assistant Professor of Speech*

Edward Perkins Mangum, A.M., *Assistant Professor of Speech*

Norman Patterson Crawford, A.M., *Assistant Professor of Speech, Acting Director of Speech Clinic*

Walter Byron Emery, LL.B., Ph.D., *Lecturer in Speech*

Edith Shores Surrey, A.M., *Instructor in Speech*

Lee Sheward Bielski, A.M., *Instructor in Speech*

Henry Charles Krebs, A.B., *Instructor in Speech*

William Vorenberg, A.M., *Instructor in Speech*

Robert Burns Stevens, A.B., *Instructor in Speech*

Andrew Anthony Nilles, A.B., LL.B., *Associate in Speech*

*The major (Departmental).*—Prerequisite: Speech 1, 2, 11, 32. The student may select one of three areas of concentration: (1) *Public Speaking*, (2) *Theatre*, (3) *Speech Correction*. Required: twenty-four credit hours of second-group courses in area selected and twelve hours in other areas as approved by the adviser in the major area.

### FIRST GROUP

#### A *Speech Clinic*

Crawford and Staff

Individual or group lessons, without academic credit, for such speech difficulties as lisp, cleft palate, articulatory problems, and stuttering. Fee: for individual lesson, \$5; for group lesson, \$3. (Also offered 1950 summer term.)

#### B *American Speech for Foreign Students*

The Staff

Individual or group instruction without academic credit, in the formation of the sounds of spoken English, with emphasis on rhythm and inflection. The International Phonetic Alphabet is used. Fee: for individual lesson, \$5; for group lesson, \$3. (Also offered 1950 summer term.)

#### I *Effective Speaking* (3)

The Staff

Preparation and delivery of extempore speeches; developing confidence and poise, body and voice control; selecting and organizing material. Recording fee, \$2. Morning, afternoon, and evening sections. (Also offered 1950 summer term.)

Speech 1x—same as Speech 1, but offered winter term. Morning, afternoon, and evening sections.

\* On leave of absence 1950-51.



2 *Speech Making* (3)

The Staff

Special emphasis is placed on organization of material and elementary principles of persuasion. This course is a continuation of Speech 1, which is prerequisite. Recording fee, \$2. Morning, afternoon, and evening sections. (Also offered 1950 summer term.)

Speech 2x—same as Speech 2, but offered fall term. Morning and evening sections.

11 *Training the Speaking Voice* (3)

The Staff

Developing ease, naturalness, and clarity in the speaking voice. Analysis of individual voices through recordings. Phonetic approach to the study of the sounds of English, the standards of speech. Class instruction in the problems of rate, volume, pitch, and quality. Recording fee, \$2. Morning, afternoon, and evening sections. (Also offered 1950 summer term.)

Speech 11x—same as Speech 11, but offered winter term. Morning and evening sections.

32 *Oral Reading* (3)

The Staff

Reading to others, theory and practice in the problems of interpreting the printed page. Prerequisite: Speech 11 or the permission of the instructor. Recording fee, \$2. Morning, afternoon, and evening sections. (Also offered 1950 summer term.)

Speech 32x—same as Speech 32, but offered fall term. Morning, afternoon, and evening sections.

41 *Parliamentary Law* (3)

Emery

The correct procedure in forming an organization and in conducting its meetings in an orderly and businesslike manner. Saturday morning.

## SECOND GROUP

101 *Introduction to Phonetics* (3)

Bielski

The fundamental and critical analysis of the sound system of the English language. Attention to comparative phonetics and standards of pronunciation. Recording fee, \$2. Afternoon. (Also offered 1950 summer term.)

102 *Oral Interpretation of Literature* (3)

Vorenberg

Theory and practice in the problems of communicating meaning and emotion. Selections for study include poetry and prose. Prerequisite: Speech 32 or permission of the instructor. Recording fee, \$2. Afternoon.

109 *Radio Speaking and Production* (3)

E. Stevens

Radio speeches, interviews, and discussions; news reporting and interpreting; techniques of direction and production; plays; audience measurement. Prerequisite: Speech 32 or permission of the instructor. Recording fee, \$3.50. Afternoon.

131 *Group Discussion and Conference Leadership* (3)

Henigan

The process of thinking and problem solving in committees and small groups, and the methods of leading discussions and conferences. Prerequisite: six credit hours of speech or the permission of the instructor. Afternoon.



- 136 *Public Discussion and Debate* (3) Henigan  
Principles and types of public discussion and debate; practice in argumentative speaking on questions of current interest. Prerequisite: six credit hours in speech or the permission of the instructor. Afternoon.
- 143 *Persuasion* (3) Henigan  
An advanced course in public speaking with emphasis on audience analysis and audience psychology; preparation and delivery of persuasive speeches; study of current public speeches. Prerequisite: nine credit hours of speech. Morning.
- 145-46 *History and Criticism of Public Address* (3-3) E. Stevens  
A critical and historical survey of rhetorical theory and public address from Ancient Greece to the present. Prerequisite: nine credit hours of speech. Morning.
- 148 *Speeches for Special Occasions* (3) E. Stevens  
The preparation and presentation of speeches of introduction, presentation, acceptance, welcome, nomination, and eulogy. Prerequisite: nine credit hours of speech. Morning.
- 151-52 *Acting* (2-2) Vorenberg  
Introductory study of the techniques of acting, as applied to various styles of dramatic form. Prerequisite: Speech 11, 32. Laboratory fee, \$3 a term. Lecture and laboratory (3 hours)—Afternoon.
- 155-56 *Stagecraft* (2-2) R. Stevens  
Construction and painting of scenery. Laboratory fee, \$5 a term. Lecture and laboratory (3 hours) with additional hours on each major production. Afternoon.
- 157-58 *Theatre Management* (2-2)  
The psychology of press agency, building the subscription audience, box office and the buying public, the house manager in his own domain, treatment of public by personal contact between and during shows, "Selling theatre". Lectures and practical work on the public performances. Evening.
- 160 *Costuming* (2) R. Stevens  
A study of the basic characteristics of period costumes and their adaptation for the stage. Laboratory fee, \$5. Lecture and laboratory (3 hours) with additional hours on each public production. Evening.
- 163-64 *Play Direction* (2-2) Mangum  
The problems involved in directing plays. Admission by permission of the instructor. Laboratory fee, \$5 a term. Lecture and laboratory (3 hours). Evening.
- 165-66 *History of the Theatre* (2-2) Vorenberg  
A general survey of the rise of the theatre, the Classical, Medieval, Renaissance, later English and Continental, and the Modern theatre. Admission by permission of the instructor. Evening.
- 167 *Playwriting* (3) Mangum  
The theory and technique of playwriting. Admission by permission of the instructor. Evening.



- 169 *Scene Design and Stage Lighting* (2) R. Stevens  
A study of design and lighting as applied to the artistic and practical stage setting. Prerequisite: 155-56. Laboratory fee, \$5. Lecture and laboratory (3 hours) with additional hours on each public production. Afternoon.
- 175-76 *Speech Correction* (3-3) Crawford  
A study of the causes of the disorders of speech with emphasis on methods in diagnosis and treatment of defective speech. Prerequisite: Speech 11 and 101 or permission of the instructor. Laboratory fee, \$3 a term. Afternoon.
- 178 *Clinical Practice* (1) Crawford  
Case work in remedial speech. This course may be repeated for a total of three credit hours. Prerequisite: Speech 175. Time to be arranged.  
Speech 178x—same as Speech 178, but offered fall term. Time to be arranged.
- 180 *Speech Pathology* (3) Crawford  
An advanced study of the causes and symptoms of the major physiogenic and psychogenic speech disorders. Prerequisite: permission of the instructor. Afternoon.

## THIRD GROUP

- 251 *Styles in Acting* (3) Vorenberg  
A historical investigation and application of period styles and other styles evolving from dramatic forms. Prerequisite: Speech 151. Evening.
- 254 *Advanced Play Direction* (3) Mangum  
A study of modern styles in staging plays and modified techniques from the Greeks to the nineteenth century theatre. Prerequisite: Speech 163-64. Evening.
- 263-64 *Seminar* (3-3) Mangum
- 299-300 *Thesis* (3-3) The Staff



## STATISTICS

\*Frank Mark Weida, Ph.D., *Professor of Statistics, Executive Officer*  
 Everett Herschel Johnson, Ph.D., *Associate Professor of Statistics*  
 Solomon Kullback, Ph.D., *Lecturer in Statistics*  
 Dorothy Morrow Gilford, M.S., *Lecturer in Statistics*  
 Charles Lawrence Marks, A.M., *Instructor in Statistics*  
 Marie DiMario Wann, Ph.D., *Instructor in Statistics*

*Minimum requirements for the major (Field-of-Study).*—Prerequisite: Mathematics 12, 19, and 20; Philosophy 121, 122; an introductory course in one of the social sciences, one of the biological sciences, or one of the physical sciences. Required: an understanding of the underlying mathematical theory employed to characterize, compare, and elucidate quantitative or qualitative measurements which are found in Statistics 115-16, 117, 118, 155-56, 157-58; a minimum of twenty-four credit hours of second-group courses in departments unrelated to statistics. For further details, consult the adviser.

### FIRST GROUP

#### 51 *Elementary Statistics* (3)

The Staff

Collection of data, classification and tabulation, averages, construction and use of index numbers and quotients, dispersion, analysis of frequency distribution, time series, correlation, and graphic presentation. Prerequisite: one entrance unit in algebra. Laboratory fee, \$5. Lecture (2 hours)—morning and evening sections; laboratory (2 hours)—morning, afternoon, and evening sections. (Also offered 1950 summer term.)

Statistics 51x—same as Statistics 51, but offered winter term. Morning and evening sections.

#### 52 *Mathematics of Finance* (3)

The Staff

Interest and discount, annuities, valuation of stocks and bonds, sinking funds, amortization, valuation of depletable assets, depreciation, building and loan associations. Prerequisite: one entrance unit in algebra. Morning and evening sections. (Also offered 1950 summer term.)

Statistics 52x—same as Statistics 52, but offered fall term. Morning and evening sections.

#### 53 *Introduction to Statistics in Psychology and Education* (3)

Weida and Staff

Sources of data, tabulation, charts and graphs, averages, dispersion, quartiles and percentiles, raw scores and derived scores, profiles, norms and their use, frequency distributions, intelligence and other quotients, reliability and validity of tests, normal curve, correlation, elementary sampling, statistical error, limitations of statistics. Prerequisite: one entrance unit in algebra. Laboratory fee, \$5. Lecture (2 hours)—

\* On sabbatical leave winter term 1950-51.



morning and evening sections; laboratory (2 hours)—afternoon and evening sections.

Statistics 53x—same as Statistics 53, but offered winter term. Morning and evening sections.

- 54 *Introduction to Actuarial Science* (3) Weida  
Gompertz and Makeham laws of mortality, life contingencies, life annuity premiums, life insurance premiums, reserves, risk, cost, social and other types of insurance. Prerequisite: Statistics 52. Offered in 1951-52.

#### SECOND GROUP

- 104 *Statistics in Psychology and Education* (3) Wann  
Advanced study of correlation and frequency analysis, sampling theory, factor analysis, and applications to specific problems utilizing case method of study insofar as possible. Original work is required of each student. Prerequisite: Statistics 53. Laboratory fee, \$5. Lecture (2 hours), laboratory (2 hours)—evening.
- †107-8 *Biostatistics* (3-3) Marks  
Probability and significance, designing experiments, reliability of data, distributions, curve fitting, tests of significance, analysis of variance, correlation. Applications to genetics, anthropology, bacteriology, physiology, pharmacology, life tables, mortality rates and dose-mortality curves; as well as general biology. Prerequisite: one entrance unit in algebra. Offered in 1951-52.
- 111 *Business and Economic Statistics I* (3) Johnson  
Applications of statistical methods to specific problems of business administration and economics. Scope of course includes averages, dispersion, frequency distributions, sampling, and simple correlation. Admission by permission of instructor. Morning and evening sections.
- 112 *Business and Economic Statistics II* (3) Johnson  
Applications of statistical methods to specific problems of business administration and economics. Scope of course includes multiple and partial correlation, time series analysis, index numbers, business cycles, elasticity of demand and mortality schedules for depreciable property. Prerequisite: Statistics 111 or the equivalent. Morning and evening sections.
- †115-16 *Principles of Statistical Methods* \* Weida and Staff  
(3-3)  
This course emphasizes the meaning, uses, and applications of: variates and attributes, measurement and enumeration, averages and dispersion, frequency distributions and their characteristics, errors of measurement and their control, index numbers, trends, cyclical relatives, purposive and random sampling in theory and practice and their errors and estimates, correlation in theory, practice, and applications. Prerequisite: one entrance unit in algebra. Laboratory fee, \$5 a term. Lecture (2 hours)—morning and evening sections; laboratory (2 hours)—afternoon and evening sections. (Also offered 1950 summer term.)

\* Statistics 115-16 is for statistics majors, for students desiring to become statisticians, and for students in engineering and the biological and physical sciences.



- 117 *Analysis of Variance* (3) Marks  
The analysis of variance and covariance to segregate factors producing significant variation, a method to estimate experimental error, multiple classification with unequal class frequencies. Prerequisite: Statistics 115-16. Evening. (Also offered 1950 summer term.)
- 118 *Correlation and the Chi-Square Test* (3) Marks  
Advanced study of simple, partial, and multiple correlation. Rank correlation, the method of contingency, and the problem of normal and non-normal populations. Tests of independence, likeness, and goodness of fit. Prerequisite: Statistics 115-16. Evening. (Also offered 1950 summer term.)
- †155-56 *Mathematical Probability* (3-3) Marks  
Definitions, enumeration of cases, total and compound probability, repeated trials, Bayes' theorem and postulate, Bernoulli's theorem and its experimental verification, mathematical expectation, law of large numbers and its applications. Prerequisite: Mathematics 20 and Statistics 115-16. Evening.
- †157-58 *Mathematical Statistics* (3-3) Gilford  
Statistics as a science, types of problems, relative frequency and probability, binomial and multinomial distributions, Pearson system of curves, Gram-Charlier series, Cauchy distribution, correlation by regression method, Lexis theory of dispersion, generating functions, simple sampling theory, moments and semi-invariants. Prerequisite or concurrent registration; Statistics 155-56. Evening.
- 159 *Calculus of Observations* (3) Weida  
Interpolation; finite differences; least squares and theories of error; method of iteration; numerical differentiation and integration; numerical solution of algebraic, transcendental, differential, and integral equations; errors of observation; practical Fourier analysis; empirical formulas; and curve fitting. Prerequisite: Statistics 115-16 or permission of the instructor. Evening.
- 160 *Quality Control Techniques* (3) Weida  
Characteristics; scientific basis; reduction in cost of inspection, rejections, and tolerance limits; quality as an attribute; distribution of quality characteristics; laws basic to control; statistical and maximum control; detection of lack of control. Prerequisite: Statistics 111-12 or permission of the instructor. Offered in 1951-52.
- 161-62 *Techniques of Statistical Analysis* (3-3) Weida  
Industrial and other statistics, planning experiments, selection of techniques, sampling theory and practice. Prerequisite: Statistics 158 or the equivalent. (Not offered in 1950-51.)
- †197-98 *Statistical Mathematics* \* (3-3) Kullback  
Matrix algebra, quadratic forms, contour integration, measure theory, Stieltjes integration, Cauchy theory of residues, n-dimensional geometry in flat spaces. Prerequisite: Mathematics 139 or the equivalent. Evening.

\* Statistics 197-98 is prerequisite to all third-group courses except Statistics 203, 204, 205, 206.



†199-200 *Proseminar: Theoretical and Applied Statistics* (3-3)

Weida

In addition to the study of recent advances in statistical methods, this course is designed to coordinate the content of the baccalaureate major. Admission by permission of the instructor. Time to be arranged.

THIRD GROUP \*

201 *Design of Experiments* (3)

Gilford

Relative merits of random, repeated, stratified, and double sampling; Fisher-Pitman method of randomization; randomized blocks; Latin squares; factorial design; confounding, partial confounding. (Not offered in 1950-51.)

202 *Theory of Estimation and Testing Hypotheses* (3)

Gilford

Statistical hypotheses; maximum likelihood estimate; Markoff's best estimate; Neyman-Pearson theory of testing hypotheses; Bayes' theory; consistent, efficient, and sufficient statistics; theory of confidence intervals. (Not offered in 1950-51.)

†203-4 *The Theory of Econometrics* (3-3)

Johnson

Statistical methods applied to the analysis of production, supply, and demand; utility and disutility; interest and taxation; exchange. Stress is placed on the interpretation of results in terms of probability. Correlation and regression of time series. Admission by permission of the instructor. Evening.

†205-6 *Advanced Business and Economic Statistics* (3-3)

Johnson

Application of statistical methods to specific problems utilizing case method insofar as possible. Emphasis is placed on source materials, role of statistical methods, techniques of analysis, interpretation and presentation of results. Original work is required of each student. Prerequisite: Statistics 112 or the equivalent. 1951-52 and alternate years.

†257-58 *Advanced Mathematical Statistics* (3-3)

Weida

Mathematical basis of distribution functions, moments and cumulants, probability and likelihood, sampling distributions exact and approximate, Chi-square distribution, association and contingency, various conceptions of correlation, individual difference problem, time series, regression analysis, analysis of variance, theories of inference. Offered in 1951-52.

†259-60 *Advanced Mathematical Probability* (3-3)

Kullback

Modern theories and asymptotic laws; elementary theory of definite integration; limit theorems in probability; the contributions of Cramer, Frechet, Kolmogoroff, Khintchine. Prerequisite: Statistics 257-58 or the equivalent. (Not offered in 1950-51.)

\* Statistics 197-98 is prerequisite to all third-group courses except Statistics 203, 204, 205, 206.



- †263-64 *Statistical Inference* (3-3) Kullback  
Sample space; methods for estimating population parameters; fiducial inference and its application to testing hypotheses; valid, efficient, and exact estimation; Student's distribution; variance distribution; sampling statistics, i.e., moments and cumulants used as estimates of population parameters and used to test hypotheses. Prerequisite or concurrent registration: Statistics 259-60 or the equivalent. (Not offered in 1950-51.)
- †265-66 *Multivariate Analysis* (3-3) Kullback  
Tests of significance, generalized variance and covariance, tests of independence, canonical and vector correlations, multivariate normal distribution, generalized Student's ratio, problems of estimation, applications to factor analysis. Evening.
- †267-68 *Characteristic Functions* (3-3) Kullback  
Fourier integrals, set functions, inversion formulas, limit theorems, applications to the distribution problem in statistics. Offered in 1951-52.
- †269-70 *Sequential Testing* (3-3) Weida  
Efficiency of sequential tests, sequential probability ratio test, expected number of observations necessary for a decision, truncated sequential analysis, sequential tests of single and composite hypotheses. Offered in 1951-52.
- 295-96 *Reading and Research* (3-3) Weida  
Admission by permission of the instructor. Time to be arranged.
- 299-300 *Thesis* (3-3) Weida



## SURGERY

- Brian Blades, A.B., M.D., *Professor of Surgery, Executive Officer*  
 Daniel LeRay Borden, A.M., M.D., *Clinical Professor of Surgery*  
 Paul Stirling Putzki, M.D., *Clinical Professor of Surgery*  
 Arch Lockhart Riddick, B.S., M.D., *Clinical Professor of Surgery*  
 William Berry Marbury, M.D., *Clinical Professor of Surgery*  
 Custis Lee Hall, M.D., *Clinical Professor of Surgery*  
 John Hugh Lyons, M.S., M.D., *Clinical Professor of Surgery*  
 Paul Budd Magnuson, M.D., *Adjunct Clinical Professor of Surgery*  
 John Gordon Lee, A.B., M.D., C.M., Med. Sc.D., *Adjunct Clinical Professor of Surgery*  
 Sam Foster Seeley, B.S., B.M., M.D., *Adjunct Clinical Professor of Surgery*  
 Wallace Harry Graham, B.S., M.D., *Professorial Lecturer in Surgery*  
 Herbert Hermann Schoenfeld, M.D., *Associate Clinical Professor of Surgery*  
 Alec Horwitz, M.S., M.D., *Associate Clinical Professor of Surgery*  
 William Stanley McCune, A.B., M.D., *Associate Clinical Professor of Surgery*  
 Edward James Beattie, Jr., M.D., *Assistant Professor of Surgery*  
 Benjamin Franklin Dean, Jr., M.S., M.D., *Assistant Clinical Professor of Surgery*  
 Vincent Michael Iovine, B.S., M.D., *Assistant Clinical Professor of Surgery*  
 Carl Berg, M.D., *Assistant Clinical Professor of Orthopedic Surgery*  
 Calvin Trexler Klopp, A.B., M.D., *Assistant Clinical Professor of Surgery*  
 Julius Salem Neviaser, A.B., M.D., *Assistant Clinical Professor of Orthopedic Surgery*  
 Jerome Blaine Harrell, M.D., *Assistant Clinical Professor of Surgery*  
 Leonard Theodore Peterson, A.B., B.S., M.D., *Assistant Clinical Professor of Orthopedic Surgery*  
 Richard Knight Thompson, D.D.S., *Associate in Dental Surgery*  
 William Ross Morris, M.D., *Associate in Surgery*  
 Harold Walter Krogh, D.D.S., *Associate in Dental Surgery*  
 Jacob Joseph Weinstein, B.S., Phar.G., M.D., *Associate in Surgery*  
 William Carey Meloy, M.D., M.S. in Med., *Associate in Surgery*  
 Edward Alexander Cafritz, M.D., *Associate in Surgery*  
 Walter Henry Gerwig, Jr., A.B., M.D., *Associate in Surgery*  
 Rhodes Carl Garby, A.B., M.D., *Instructor in Surgery*  
 Hazen Eugene Cole, B.S., M.D., *Clinical Instructor in Surgery*



- Crenshaw Douglas Briggs, B.S., M.D., *Clinical Instructor in Surgery*  
 William Wiley Chase, A.B., M.D., *Clinical Instructor in Surgery*  
 Arthur James Mourot, B.S., M.D., *Clinical Instructor in Surgery*  
 Joseph Francis Conlon, D.D.S., *Clinical Instructor in Dental Surgery*  
 Otto Anderson Engh, A.B., M.D., *Clinical Instructor in Surgery*  
 Duane Case Richtmeyer, A.B., M.D., *Clinical Instructor in Surgery*  
 Richard Lee Jackson, M.D., *Clinical Instructor in Surgery*  
 Leon Gerber, M.D., *Clinical Instructor in Surgery*  
 Thomas Bradley, A.B., M.D., *Clinical Instructor in Surgery*  
 Lloyd Byron Burk, Jr., M.D., *Clinical Instructor in Surgery*  
 Ernest Alva Gould, M.D., *Clinical Instructor in Surgery*  
 Austin Bertram Rohrbaugh, Jr., M.D., *Clinical Instructor in Orthopedic Surgery*  
 T. Wiley Hodges, A.B., M.D., *Clinical Instructor in Orthopedic Surgery*  
 George Alfred Higgins, B.S., M.D., *Clinical Instructor in Surgery*  
 Marvin Hayne Kendrick, A.B., M.D., *Clinical Instructor in Surgery*  
 Brooks Gideon Brown, B.S., M.D., *Clinical Instructor in Surgery*  
 Gordon Sparks Letterman, A.B., B.S., M.D., *Clinical Instructor in Surgery*  
 Lois Irene Platt, A.B., M.D., *Clinical Instructor in Surgery (Cancer Cytology)*  
 John Decator Hoyle, B.S., M.D., *Clinical Instructor in Surgery*  
 Henry Leon Feffer, A.B., M.D., *Clinical Instructor in Orthopedic Surgery*

- 280 *Introduction to Surgery* The Staff  
 One hour twice a week. Lectures and recitations covering the field of general surgery.
- 284 *Surgical Physiology* The Staff  
 A clinical and laboratory course with particular emphasis on applied physiology. Two hours a week.
- 373-74 *Clinical Clerkship I* The Staff  
 The student is assigned and required to work up thoroughly the cases for diagnosis and treatment. Gallinger Hospital.
- 375-76 *Ward Walks* The Staff  
 Group ward rounds are made with the visiting physicians and their respective staffs in the course of their usual rounds. Gallinger Hospital.
- 377-78 *Orthopedics I* The Staff  
 Weekly orthopedic lecture, Gallinger Hospital; weekly three-hour orthopedic clinic, Surgery Outpatient Department, University Hospital.
- 379-80 *Surgical Staff Conference I* The Staff  
 Tuesday at Gallinger Hospital; Wednesday at the University Hospital.



- 383-84 *Surgical Clinic I* Blades  
Demonstration of various surgical diseases to the entire third- and fourth-year classes. One hour a week.
- 385 *Surgical Anatomy* Horwitz  
Two one-hour lectures a week. University Hospital.
- 391-92 *Surgical Pathology I* Hill  
One hour conference each week.
- 473-74 *Clinical Clerkships II* The Staff  
Available at the University, Walter Reed, Emergency, and Mt. Alto hospitals.
- 477-78 *Orthopedics II* The Staff  
Weekly orthopedic lecture, Gallinger Hospital; weekly three-hour orthopedic clinic, Surgery Outpatient Department, University Hospital.
- 479-80 *Surgical Staff Conference II* The Staff  
Tuesday at Gallinger Hospital; Wednesday at the University Hospital.
- 483-84 *Surgical Clinic II* Blades  
Demonstration of various surgical diseases to the entire third- and fourth-year classes. One hour a week.
- 491-92 *Surgical Pathology II* Hill  
One hour conference each week.
- 493-94 *Surgical Diseases of the Chest* Blades and Staff  
(Elective)  
Patients with various diseases of the chest, including the lungs, mediastinum and esophagus are presented. The cases are followed from week to week and operative specimens and microscopic sections are demonstrated. Walter Reed Hospital. Two hours a week.



## UROLOGY

Frederick A. Reuter, M.D., *Professor of Urology, Executive Officer*  
 Thomas Carlton Thompson, B.S., M.D., *Clinical Professor of Urology*  
 Gilbert Ottenberg, A.M., M.D., *Associate in Urology*  
 William Dabney Jarman, B.S., M.D., *Clinical Instructor in Urology*  
 Edward Egner Ferguson, M.D., *Clinical Instructor in Urology*  
 Leon Richard Culbertson, B.S., M.D., *Clinical Instructor in Urology*  
 Gordon Rhodes MacDonald, M.D., *Clinical Instructor in Urology*  
 Herbert DeGrange Wolff, Jr., M.D., *Clinical Instructor in Urology*

395-96 *Clinics* The Staff  
 Clinical teaching and demonstrations on the care of urological cases with special emphasis on the pre- and post-operative management. Operative clinics and clinical teaching. Gallinger Hospital.

491-92 *Urology* Reuter and Staff  
 Lectures covering the entire field of urology including diagnosis, treatment, and morbid pathology. One hour a week.

495-96 *Clinics* Reuter and Staff  
 Clinical demonstrations and teaching in the Outpatient Department, with special attention given to diagnostic procedures. Emergency and University hospitals. One part of each section daily.



## ZOOLOGY \*

Donnell Brooks Young, Ph.D., *Professor of Zoology*  
 Ira Bowers Hansen, Ph.D., *Professor of Zoology, Executive Officer*  
 Kenneth Casper Kates, Ph.D., *Professorial Lecturer in Zoology*  
 Edith Elizabeth Mortensen, Ph.D., *Associate Professor of Zoology*  
 Francis Lincoln Lambert, B.S., *Instructor in Zoology*

*The major in Zoology (Field-of-Study).*—Prerequisite: Zoology 1-2. The student must, at the end of his senior year, exhibit a correlated knowledge of the following fields: (1) classification, structure, and ecological relations of animals, both invertebrate and vertebrate; (2) embryological development and life histories of important animal types; (3) general principles of physiology, heredity, and evolution; (4) the development of biological principles, hypotheses, and theories as revealed in the study of the history of zoology.

The student will obtain this knowledge in part by taking courses offered in these fields and in part by individual study under the direction of his adviser. For further details, see the pamphlet on this subject or consult the adviser.

### FIRST GROUP

#### 1-2 *Introduction to Zoology* (4-4) Young, Lambert

An introduction to the study of the structure, functions, and relation of animals, and of the fundamental biological principles involved. Material fee, \$4.50 a term. Lecture (2 hours)—morning and evening sections; laboratory (4 hours)—morning, afternoon, and evening sections. (Also offered 1950 summer term.)

Zoology 1x—same as Zoology 1, but offered winter term. Morning.

Zoology 2x—same as Zoology 2, but offered fall term. Morning.

#### 41-42 *Comparative Vertebrate Anatomy* (3-3) Hansen

Lectures on the organ systems of the vertebrates; laboratory dissections of types. Prerequisite: Zoology 2. Material fee, \$6 a term. Lecture (1 hour)—afternoon and evening sections; laboratory (4 hours)—morning, afternoon, and evening sections. (Also offered 1950 summer term—Zoology 142 (3).)

### SECOND GROUP

#### 101-2 *Invertebrate Zoology* (3-3) Mortensen

A systematic study of invertebrate forms, including the study of morphology, classifications, life histories, and phylogenetic relationships. Occasional field trips. Prerequisite: Zoology 1-2 or Biology 1-2. Material fee, \$4.50 a term. Lecture (1 hour); laboratory (4 hours). Afternoon and evening sections.

#### 105 *Entomology* (3) Munson

A study of the elementary morphology, physiology, and ecology of insects, with an introduction to the taxonomy of the more important

\* See also the departments of Biology and Botany, pages 172-73, 174-75.



groups. Prerequisite: Zoology 1-2, or the equivalent. Material fee, \$5. Lecture (1 hour), laboratory (4 hours)—morning. (Also offered 1950 summer term.)

122 *Zoological Theories* (3) Young

A review of the theories which have affected the development of the various phases of the progress of Zoology. Prerequisite: Zoology 1-2 and one additional year of a biological science. Morning.

137 *Histology* (3) Young

An introduction to the microscopical anatomy of normal tissues and organs. Prerequisite: Zoology 1-2. Material fee, \$6. 1950-51 and alternate years, lecture (1 hour); laboratory (4 hours)—afternoon. 1951-52 and alternate years—evening. (Also offered 1950 summer term.)

144 *Introduction to Vertebrate Embryology* (3) Hansen

The origin and early development of the individual and the formation of organ systems. Emphasis is placed on the frog, chick, and pig, with reference to the human embryo. Prerequisite: Zoology 2, and 41 or 42. Material fee, \$6. Lecture (1 hour); laboratory (4 hours)—afternoon. (Also offered 1950 summer term.)

Zoology 144x—same as Zoology 144, but offered fall term. Evening.

147-48 *Experimental Morphology* (3-3) Hansen

Lectures and class reports on experimental morphology. Prerequisite: Zoology 41-42 or the equivalent. 1950-51 and alternate years, evening.

152 *Protozoa* (3) Mortensen

An introduction to the protozoa: classification, life histories, and physiology, with special emphasis on free-living types. Prerequisite: Zoology 1. Material fee, \$4.50. Lecture (1 hour); laboratory (4 hours). 1951-52 and alternate years, evening.

156 *Parasitology* (3) Kates

An introduction to the study of animal parasitology, with a survey of parasitic types from protozoa through arthropods. Prerequisite: Zoology 1-2 or the equivalent. Material fee, \$6. Evening.

171-72 *Special Problems* (3-3) The Staff

Written approval of the instructor is required. Material fee, \$6 a term. Time to be arranged.

199-200 *Proseminar* (3-3) The Staff

A course designed to correlate and supplement the work of zoology majors. Morning and evening sections.

### THIRD GROUP

203-4 *Seminar in Invertebrate Zoology* (3-3) Mortensen

Time to be arranged.

214 *Advanced Invertebrate Zoology* (3) Mortensen

Lectures and laboratory work on problems in invertebrate physiology. Prerequisite: Zoology 1 and 101-2 or the equivalent. Material fee,



- \$4.50. Lecture (2 hours); laboratory (2 hours). 1950-51 and alternate years, evening.
- 251-52 *Seminar in Vertebrate Zoology* (3-3) Hansen  
Time to be arranged.
- 295-96 *Research* The Staff  
Investigation of special problems. Time and credits to be arranged.  
(Also offered 1950 summer term.)
- 299-300 *Thesis* (3-3) The Staff  
Time to be arranged. (Also offered 1950 summer term.)



## STUDENT LIFE

### HEALTH ADMINISTRATION

The University maintains a health service that is primarily designed to be preventative. The medical superintendent and health administration staff is on the Campus Health Center and Health Unit, and is available to all students and faculty in attendance. There is also a rest room for women with a graduate nurse in charge.

Medical privileges include: (1) the physical examination of every student entering from secondary schools; (2) direct visits to the University Hospital or campus clinic or ambulatory (Clinic of Columbia) in any case where evidence of a communicable, surgical, infectious, laboratory, or X-ray examination; (3) internships, including blood and medical in the University Hospital for all work done on the campus and beyond, and in the campus clinic. For a complete medical and dental program, see the

## STUDENT LIFE

### LIVING ACCOMMODATIONS

**Women Students.**—Women students under twenty-one years of age who are registered for courses or work credit hours of instruction work in the University must have their residence approved by the Director of Activities for Women before their registration can be considered. In the Morris M. Irving Residence Hall and Langston Residence Hall, single rooms are \$10 and \$12 a month, double rooms are \$12 and \$14 a month a person. Meals are served at the Student Union. Application for the rooms should be made well in advance. Forms for application, together with descriptive information, may be obtained from the Director of Activities for Women.

**Men Students.**—Welling Hall provides single room facilities for men students. Rooms rent for \$10 a month a person. Single and double rooms are provided for day students in Cooper and Bradley Halls. There are temporary dormitories and housing is restricted to students of World War II who are provided for a minimum of twelve credit hours of college work in the University. Single rooms are \$12 a month, double rooms are \$14 a month a person. The University maintains a list of members of temporary apartment units for sharing rooms and meals and their families subject to the same requirements for temporary housing. Meals are served at the Student Union. Application forms for temporary housing may be obtained from the Director of Activities for Men.



1911-12. Summer in Cambridge, England. (1-12)

1912-13. Summer in Cambridge, England. (1-12)

1913-14. Summer in Cambridge, England. (1-12)

1914-15. Summer in Cambridge, England. (1-12)

## STUDENT LIFE



## STUDENT LIFE

### HEALTH ADMINISTRATION

The University maintains a health service that is primarily diagnostic in its intent. For medical emergencies and health consultations there is, on the Campus, a Student Health Clinic open from 9:00 A.M. to 5:00 P.M., with physician and nurse in attendance. There is also a rest room for women, with a graduate nurse in charge.

Medical privileges include: (1) the physical examination of every student entering from secondary school; (2) three visits by the University physician or surgeon, office or residence (District of Columbia) in any one illness, exclusive of a specialist, surgical operation, laboratory, or X-ray examination; (3) hospitalization, including board and nursing, in the University Hospital for not more than one week during any twelve-month period. For a statement of the rules governing medical and hospital privileges, see the Department of Health Administration.

### LIVING ACCOMMODATIONS

*Women Students.*—Women students under twenty-one years of age who are enrolled for twelve or more credit hours of academic work in the University must have their residences approved by the Director of Activities for Women before their registrations can be completed. In the Hattie M. Strong Residence Hall and Staughton Residence Hall, single rooms are \$30 and \$35 a month; double rooms are \$23 and \$28 a month a person. Meals are served at the Student Union. Applications for rooms should be made well in advance. Forms for application, together with detailed information, may be obtained from the Director of Activities for Women.

*Men Students.*—Welling Hall provides double room facilities for 102 students. Rooms rent for \$24 a month a person. Single and double rooms are provided for 203 students in Draper and Bradley Halls. These are temporary dormitories and residence is restricted to veterans of World War II who are enrolled for a minimum of twelve credit hours of academic work in the University. Single rooms are \$17 a month; double rooms are \$13 a month a person. The University maintains a limited number of temporary apartment units for married veteran students and their families subject to the same requirements for tenancy as above. Meals are served at the Student Union. Application forms for reservations may be obtained from the Director of Activities for Men.



Information concerning private rooming and boarding facilities near the University for women students twenty-one years of age or older and for men students may be obtained at the offices of the Director of Activities for Women and the Director of Activities for Men. The reservation of rooms in private houses must be made by students.

#### RELIGIOUS LIFE

The University recognizes the contribution that religion can make to the education of its students by encouraging them to participate in denominational clubs of their own choice. National Catholic, Hebrew, and Protestant bodies sponsor these religious organizations, which act as links between the University and the local churches. The Director of the University Chapel and the advisers to the various denominational organizations are available throughout the year for consultation on personal problems.

#### UNIVERSITY CHAPEL

The University Chapel is maintained as a non-sectarian expression of the faith of the University in the contribution that religion can make to the education of its students. Twenty-minute services are held Wednesday of each week at 12:10 P.M. Representative clergymen of Washington are guest speakers at these non-denominational services.

#### STUDENT PLACEMENT OFFICE

The Student Placement Office provides assistance to students and alumni seeking full- and part-time employment. This office maintains a registry of vacancies in the Government and in private industry and refers qualified applicants for appointment. Information is also available on Civil Service examinations. The Placement Office arranges for interviews between students and those representatives of national, regional, and local business and industrial organizations who periodically visit the University.

The prospective student who expects to earn part of his expenses and who does not have a definite appointment to a position should have the means of support for at least one term. The obtaining of a position is contingent on so many factors that immediate employment cannot be assured.

#### VOCATIONAL COUNSELING

The Washington Counseling Center, established by the University, is at 2011 H Street NW. The Center offers educational and vocational counseling service, advice on social and personal problems, a psychometric



service in tests and measurements, and the use of files of occupational information and training opportunities.

#### STUDENT UNION

The Student Union, 2125 G Street NW., is the center for student life. From the cafeteria and snack bar on the first floor to the game room on the fourth floor, it is well planned to meet the students' need for meals, study, recreation, and activities. In addition to the recreation lounge and social lounge the Student Union provides office space for the Student Council and for the other major student organizations.

The Student Activities Office, also in the Student Union, has available information concerning the student organizations and campus events.

#### INTERNATIONAL HOUSE

The International House, 2116 G Street NW., is the social center for students from foreign countries. A series of teas, dances and other forms of entertainment, and the use of club rooms and lounge enable students to become acquainted and feel at home in the University.

The International Students' Society, now in its eighteenth year, welcomes as members students from other lands as well as North American students.

The Adviser to Students from Foreign Countries, whose office is in International House, is available for advice and guidance.

#### STUDENT ACTIVITIES

##### DIRECTORS OF STUDENT ACTIVITIES

The University maintains the offices of the Director of Activities for Men and the Director of Activities for Women, for the guidance of students in all nonacademic phases of student life, such as, student activities, social life, and housing. The directors are available for individual counseling concerning personal adjustment to university life.

#### STUDENT GOVERNMENT

##### Student Council

The Student Council is responsible to the Director of Activities for Men and the Director of Activities for Women for the conduct of all student activities. Members of the Council are elected annually.

##### Committee on Student Life

The Committee on Student Life, composed of five faculty members and six student members, is the judicial branch of the student govern-



ment. It may review acts of all student organizations, including the Student Council, with power to set aside such acts if they are unconstitutional.

*Approval of Student Organizations.*—The establishment of new student organizations must have the approval of this Committee. No student club or society (except social fraternities, sororities, scholastic honor societies, religious or professional clubs or societies) organized as a branch or affiliate of a non-George Washington University organization will be recognized by the Committee on Student Life.

#### ELIGIBILITY FOR STUDENT ACTIVITIES

Any student registered in The George Washington University who has a general average of not less than *C* (2.00) is eligible to participate in non-athletic student activities, subject to conditions specified by the local or national organization, approved by the Committee on Student Life.

The rules and policies of the Southern Conference govern participation in intercollegiate athletics.

The control and administration of all student activities are outlined in a separate bulletin.

#### STUDENT ORGANIZATIONS

##### HONOR SOCIETIES

*Phi Beta Kappa.*—A national honor society recognizing "outstanding intellectual capacity well employed" in the field of liberal arts and sciences. Senior and junior students who are candidates for the degree of Bachelor of Arts or Bachelor of Science in Columbian College (in exceptional cases, senior and junior students in other non-professional divisions of the University) and who have shown broad cultural interests, distinguished scholarly achievement, high character, general promise, and scholarly ideals may, to a number not exceeding 15 per cent of a class, be elected to membership by the Faculty members of the Alpha Chapter of the District of Columbia.

*Sigma Xi.*—A national scientific honor society, the purpose of which is to encourage original investigation in science pure and applied. Outstanding graduate students in the sciences are eligible for full membership, and undergraduates who have shown marked ability in research may be elected to associate membership.

*Alpha Lambda Delta.*—A national fraternity established to encourage and reward high scholarship and attainment, membership in which is



limited to those freshman women who attain a scholastic average of at least 3.50.

*Alpha Pi Epsilon*.—An honorary fraternity for students in home economics.

*Artus*.—A national economic society.

*Delphi*.—An intersorority society.

*Delta Sigma Rho*.—A national forensic honor society.

*Gate and Key*.—An interfraternity society.

*Iota Sigma Pi*.—A national honorary chemical society for women.

*Kappa Kappa Psi*.—A national honor society for college bandmen.

*Mortar Board*.—A national honorary society for senior college women, stressing leadership, scholarship, and service.

*Omicron Delta Kappa*.—A national fraternity emphasizing leadership in extracurricular activities.

*Order of the Coif*.—A national legal society, the purpose of which is to foster a spirit of careful study and to mark in a fitting manner those who have attained a high grade of scholarship. Members are elected each year from the highest 10 per cent of the graduating class of the Law School.

*Phi Eta Sigma*.—A national fraternity, established to encourage and reward high scholarship and attainment, membership in which is limited to those freshman men who attain a scholastic average of at least 3.50.

*Pi Delta Epsilon*.—A national honorary collegiate journalism fraternity.

*Pi Gamma Mu*.—A national social-science society.

*Psi Chi*.—A national honorary psychology fraternity.

*Sigma Pi Sigma*.—A national honorary physics fraternity.

*Sigma Tau*.—A national engineering fraternity, the purpose of which is to recognize scholarship and professional attainment.

*Smith-Reed-Russell Society*.—A scholastic society in the School of Medicine. Students of the third and fourth years who maintain a scholastic average of 86 per cent are eligible for associate membership.

*William Beaumont Medical Society*.—A society founded with the object of encouraging and stimulating medical students in work of individual investigation.

#### PROFESSIONAL ORGANIZATIONS

Alpha Chi Sigma (chemistry), Alpha Epsilon Iota (medicine), Alpha Kappa Psi (commerce and economics), Alpha Zeta Omega (pharmacy), American Institute of Electrical Engineers (student chapter), American Institute of Radio Engineers (student chapter), American Pharmaceutical Association (student branch), American Society of Civil Engineers (student chapter), American Society of Mechanical Engineers (student chapter), Chi Upsilon (geology), Delta Phi Epsilon (foreign service),



Delta Theta Phi (law), Future Teachers of America, Gamma Eta Gamma (law), Kappa Beta Pi (law), Mortar and Pestle (pharmacy), Nu Sigma Nu (medicine), Phi Alpha Delta (law), Phi Chi (medicine), Phi Delta Delta (law), Phi Delta Epsilon (medicine), Phi Delta Gamma (graduate), Phi Delta Kappa (education), Phi Delta Phi (law), Phi Pi Epsilon (foreign service), Pi Lambda Theta (education), Society for the Advancement of Management (student chapter), Theta Tau (engineering).

#### SOCIAL FRATERNITIES

Sigma Chi, Kappa Sigma, Kappa Alpha, Theta Delta Chi, Phi Sigma Kappa, Sigma Alpha Epsilon, Sigma Phi Epsilon, Phi Alpha, Sigma Nu, Acacia, Tau Kappa Epsilon, Pi Kappa Alpha, Argonauts, Tau Epsilon Phi, Alpha Epsilon Pi, Delta Tau Delta, Phi Epsilon Pi.

#### SOCIAL SORORITIES

Pi Beta Phi, Chi Omega, Sigma Kappa, Phi Mu, Alpha Delta Pi, Delta Zeta, Kappa Delta, Phi Sigma Sigma, Zeta Tau Alpha, Kappa Kappa Gamma, Delta Gamma, Kappa Alpha Theta.

#### DEPARTMENTAL CLUBS

Art Club; Case Club; Charles Clinton Swisher History Club; Colonial Forensic Team; Dance Production Groups, I, II, III; El Club Español; Engineering Council; George Washington University Geographical Society; Home Economics Club; Howard E. Kane—A.F.A. King Obstetrical Society; Le Cercle Français; Lester F. Ward Sociological Society; Literary Club; Mathematics Club; Oquassa; Psychology Club; Radio Workshop; Schoenfeld Verein; Speech and Hearing Society; Student Bar Association.

#### RELIGIOUS ORGANIZATIONS

Baptist Student Union, B'nai B'rith Hillel Foundation, Canterbury Club, Christian Science Organization, Lutheran Student Association, Newman Club, Religious Council, Wesley Club, Westminster Foundation.

#### MUSICAL ORGANIZATIONS

Girls' Glee Club, Men's Glee Club, University Band.

#### STUDENT PUBLICATIONS

*The Cherry Tree* (the annual), *The University Hatchet* (weekly newspaper), *The George Washington Law Review*, *Mecheleciv* (engineers' publication), *The Percolator* (pharmaceutical publication), *The Colonial Review* (literary magazine).



## OTHER ACTIVITIES

Alpha Theta Nu (scholarship winners), Big Sisters, Chess Club, Colonial Boosters, Current Affairs Club, Hellenic Society, Independent Students' Association, Inter-fraternity Council, Inter-fraternity Pledge Council, International Students' Society, Intersorority Athletic Board, Junior Panhellenic Association, Martha Washington Club, Masonic Club, Pistol Association, Sailing Association, Senior Panhellenic Association, Staughton Hall Council, Strong Hall Council, Student Council, Student Veterans of World War II, The George Washington University Players, Women's Recreation Association, World Government Seminar Group.

There is a complete program of intramural sports for both men and women.







# INDEX

## INDEX



INDEX



## INDEX

### A

- Absence, regulations concerning  
SEE Attendance
- Academic Council, xxi-xxii
- Academic status of the University, 6
- Accounting:  
Associate in Arts curriculum in, 61
- Bachelor of Arts curriculum in, 59-60, 145-46
- Courses in, 161-63
- Master of Arts curriculum in, 147, 149
- Activities, student, 327-28  
SEE ALSO special bulletin
- Administration, officers of, xix-xx
- Administrative Assistants, lxiv-lxviii
- Admission, 11-19
- Advanced standing, 12-13
- Advertising, courses on, 178, 226
- Advisory system, Junior College, 51-52
- American Thought and Civilization, major in, 73, 74-75
- Anatomy, courses in, 164, 264, 269, 320
- Anesthesiology, courses in, 165
- Aptitude tests, 12, 43, 52
- Art, courses in, 166-67
- Arts and Sciences, college of, 63-79
- Attendance, 36, 40  
SEE ALSO under Colleges, Schools, and Divisions
- Auditor, 23, 38
- Awards, 29-34

### B

- Bacteriology, courses in, 168-69
- Biochemistry, courses in, 170-71
- Biology, courses in, 172-73
- Botany, courses in, 174-75
- Buildings of the University, 7-9
- Business Administration:  
Bachelor of Arts curriculum in, 59-60, 144-45
- Courses in, 176-79
- Master of Arts curriculum in, 147, 149

### C

- Calendar for 1950-51, vii-xi
- Change in program of studies, 38
- Chapel, 326

- Chemistry, courses in, 180-84
- Civil Engineering:  
Courses in, 185-87
- Curriculum in, 112-13
- Classical Languages and Literatures, courses in, 188
- Classification of students, 19, 70, 106
- Clinics, School of Medicine, 92-93
- College Entrance Board examinations, 12
- Colleges, Schools, and Divisions, 5
- Columbian College (senior college of liberal arts), 63-79  
Entrance requirements, 13-14, 56-57
- Prerequisite to Bachelor of Arts and Bachelor of Science curricula in, 68-69
- Commencement  
SEE Graduation
- Committees of the Faculty, xxiii-xxiv  
SEE ALSO under Colleges, Schools, and Divisions
- Communications option in Electrical Engineering, 114
- Contents, table of, v-vi
- Convocation  
SEE Graduation
- Correspondence Courses, 70
- Counseling, courses on, 200, 288, 290, 291
- Course numbers, explanation of, 159-60
- Courses of instruction, 157-322
- Credit:  
Credit hour, explanation of, 160
- Credit hours, maximum allowed full- and part-time students  
SEE Colleges, Schools, and Divisions
- Explanation of amount of, 160
- Toward a degree, 38-39
- Transfer of:  
For correspondence and home study courses, 70
- For professional courses, 72
- For summer school work, 39
- From other institutions, 12-13, 14, 15, 16, 17
- Within the University, 72, 152, 154



## D

- Dance, courses on, 264, 265, 266, 268, 269, 270
- Degrees:
- Associate in Arts, 54-62
    - In accounting, 61
    - In Secretarial Studies, 61
  - Bachelor of Arts, 71-73, 74-76
    - In Education, 130-31
    - In Government, 142-47
  - Bachelor of Civil Engineering, 111-13
  - Bachelor of Electrical Engineering, 111-12, 114-15
  - Bachelor of Laws, 106
  - Bachelor of Mechanical Engineering, 111-12, 115-16
  - Bachelor of Science, 71-73, 73-76
    - In Engineering, 111-12, 116-17
    - In Home Economics, 130, 132
    - In Pharmacy, 121-24
    - In Physical Education for Men, 130, 132-33
    - In Physical Education for Women, 130, 133-34
  - Civil Engineer, 117-18
  - Combined Bachelor of Arts and Doctor of Medicine, 71, 73, 97
  - Doctor of Education, 137-38
  - Doctor of Juridical Science, 107
  - Doctor of Medicine, 96-97
  - Doctor of Philosophy, 82-87
  - Electrical Engineer, 117-18
  - Juris Doctor, 106
  - Master of Arts, 76-79
    - In Education, 134-37
    - In Government, 147-51
  - Master of Comparative Law, 107
  - Master of Laws, 107
  - Master of Science, 76, 77-79
    - In Pharmacy, 124-26
  - Mechanical Engineer, 117-18
  - Dermatology, courses in, 189
  - Dismissal of students, 41-42
  - Distinction, degrees with, 40-41, 62, 97, 106
  - Divisional Organization, 68
  - Doctoral Dissertation, form of, 40
  - Dormitories, 325
  - Dramatics, courses on, 309-10
  - Dropping courses, 37-38
- E
- Economics, International, Foreign Affairs, Master of Arts curriculum in, 148-49
- Economics, courses in, 190-95

## Education:

- Courses in, 196-201
- School of, 127-38
  - Entrance requirements, 18, 57-59
- Educational Facilities of the University, 7-9
- Electrical Engineering:
  - Communications option in, 114
  - Courses in, 202-4
  - Curriculum in, 112, 114
  - Power option in, 115
- Eligibility for student activities, 328
- Emeritus Faculty, xxv-xxvi
- Employment, student, 326
- Endowment of the University, 4
- Engineering:
  - Courses in, 185-87, 202-4, 237-39
  - School of, 108-18
    - Entrance requirements, 17
- English:
  - Courses in, 205-9
  - Placement examination, 52, 206
- Entrance requirements, 13-19
- Examinations, 37
  - College Entrance Board, 12
  - For admission, 12, 43
  - For placement in language courses, 52
  - For qualifying for advanced standing or waiving curriculum requirements, 62, 72-73, 146-47
  - SEE ALSO in University calendar
- Graduate Record, 12
- Physical, 22
- Scholastic aptitude tests, 43, 52

## F

## Faculty:

- Alphabetical list, xxvii-lxiii
- Standing committees, xxiii-xxiv
- Fees, 21-23
- Fellowships, 24-25, 87
- Financial aid, 34-35
- Financial regulations, 21-23
- Foreign Affairs:
  - Bachelor of Arts curriculum in, 60, 143-44
  - Master of Arts curriculum in, 148-49
- Foreign Commerce, major in, 144-45
- Foreign language:
  - Placement examination, 52
  - Requirements, 55
- Foreign Service, curricula in
- SEE Foreign Affairs



- Foreign Service Review Course, 151  
Fraternities, 330  
French:  
  Courses in, 296-98  
  Placement examination, 52
- G**
- Genetics, course on, 172  
Geography, courses in, 210-12  
Geology, courses in, 213  
Germanic Languages and Literatures, courses in, 214-15  
Government, School of, 139-51  
  Entrance requirements, 18-19, 59-60  
Government and Economic Policy, Master of Arts curriculum in, 147-48, 150  
Grades, 36-37, 95, 105  
Grading system, 36-37, 95, 105  
Graduate Council, 14, 80-87  
  Fields of research, 82-84  
Graduate Record examination, 12  
Graduate study, 5  
  SEE ALSO Degrees  
Graduation:  
  Application for, 39  
  Dates  
  SEE University calendar, ix-xi  
  Requirements, 39-40  
Greek, course in, 188  
Gynecology, courses in, 247-49
- H**
- Health Administration, Department of, 216, 325  
Health Services, student, 216, 325  
History:  
  Courses in, 217-21  
  Of the University, 3-4  
Home Economics:  
  Courses in, 222-24  
  Curriculum in, 58, 132  
Home-study courses, 70  
Honor Role, 54  
Honor societies, 328-29  
Honors, 40-41, 62, 97, 106  
Hospital, University, 91, 92-93  
Hospitalization, 216, 325  
Hours of instruction, 159  
  In the Law School, 103  
Hygiene, course on, 169
- I**
- Independent study plan, 70, 142  
"In residence" status, 40  
Insurance, courses on, 177, 192, 312
- International law, courses on, 231, 233, 282, 283, 284  
International Relations:  
  Foreign Affairs fields in,  
    For the Bachelor's degree, 143-44  
    For the Master's degree, 148-49  
  Master of Arts field in, 76-79  
Intern training program, 97  
Internship, 34
- J**
- Journalism, courses in, 225-26  
Junior College, 47-62  
  Entrance requirements, 13
- L**
- Labor, courses on, 176, 179, 192, 194, 231  
Laboratory fees and deposits, 21  
  SEE ALSO Courses of Instruction  
Language placement examination, 52  
Language requirements, 55  
Languages and Literatures, Division of, 68  
Latin, courses in, 188  
Latin America, courses on, 193, 195, 212, 219, 220, 282, 283  
Latin American Civilization and Culture, Columbian College major in, 73, 74-75, 190  
Law:  
  Course of study for foreign lawyers, 102  
  Courses in, 227-33  
  Review, 101  
  School, 99-107  
    Entrance requirements, 15-17  
Leave of absence, 40  
Liberal Arts, college of, 63-79  
Library, 9, 41-42  
  Hours, 41-42  
  Law, 41, 101  
  Medical, 42, 92  
  Regulations, 41  
Linguistics, courses on, 207, 208, 215  
Living accommodations, 325-26  
Loan funds, 34-35  
Location:  
  Of the School of Medicine, 7  
  Of the University, 6
- M**
- Major fields in Columbian College, 74-76  
Marketing, courses on, 177, 178, 179, 226



- Master's degrees  
     SEE Degrees  
 Mathematics, courses in, 234-36  
 Mathematics and Physical Sciences,  
     Division of, 68  
 Mechanical Engineering:  
     Courses in, 237-39  
     Curriculum in, 112, 115-16  
 Medical Privileges, 216, 325  
 Medical Technologists course, 98  
 Medicine:  
     Postgraduate instruction in, 97-98  
     School of, 88-98  
         Entrance requirements, 14-15  
         Undergraduate courses in, 240-44  
 Military Science and Tactics, courses  
     in, 245  
 Musical Organizations, 330
- N
- Natural Sciences, Division of, 68  
 Neurology and Neurological Surgery,  
     courses in, 246-49
- O
- Obstetrics, courses in, 247-49  
 Ophthalmology, courses in, 250  
 Order of the Coif, 103, 329  
 Organizations, student, 328-31  
 Orthoptic Technician training course,  
     98  
 Oto-rhino-laryngology, courses in, 251
- P
- Pathology, courses in, 252  
 Pediatrics, courses in, 253-54  
 Personnel Administration:  
     Courses on, 176, 179, 200, 239, 282,  
         288, 291, 292  
     Master of Arts curriculum in, 147-  
         48, 150  
 Pharmacology, courses in, 255  
 Pharmacy:  
     Courses in, 256-60  
     Curriculum in, 122-24  
     Examinations before state boards of,  
         121  
     School of, 119-26  
         Entrance requirements, 17-18, 57  
 Phi Beta Kappa, 328  
 Philosophy, courses in, 261-62  
 Physical Education:  
     Courses in:  
         For Men, 263-67  
         For Women, 268-72
- Curriculum:  
         For Men, 59, 132-33  
         For Women, 59, 133-34  
     Requirements, 39  
 Physical examinations, 39, 216  
 Physical Medicine, courses in, 273  
 Physics, courses in, 274-77  
 Physiology, courses in, 278-79  
 Placement tests, 52, 206  
 Political Science, courses in, 280-84  
 Portuguese, courses in, 298-99  
 Postgraduate Medicine, 97  
 Power option in Electrical Engineering,  
     115  
 Premedical curriculum, 13, 15, 56  
 Preventive Medicine, courses in, 169  
 Prizes, 29-34  
 Probation:  
     SEE UNDER Colleges, Schools, and  
         Divisions
- Property, responsibility for, 42  
 Psychiatry, courses in, 285-86  
 Psychology, courses in, 287-92  
 Public Administration:  
     Courses on, 281, 283  
     Master of Arts curriculum in,  
         147-48, 150  
 Public relations, course on, 225  
 Publications, student, 330
- Q
- Qualifying examinations, 62, 72-73,  
     146-47  
     SEE ALSO in University Calendar  
 Quality-point index, 37
- R
- Radio, course on, 308  
 Radiology, courses in, 293  
 Reading clinic, 129, 197, 198, 201  
 Records, transcripts of, 38  
 Recreation, Physical Education spe-  
     cialty in, 133, 134  
 Refunds, 23  
 Registration, 20  
 Regulations, 36-42  
     SEE ALSO UNDER Colleges, Schools,  
         and Divisions  
 Religion, courses in, 294-95  
 Religious organizations, 326, 330  
 Reserve Officers' Training Corps (Med-  
     ical), 96  
 Residence halls, 325



- Residence requirements, 39-40  
SEE ALSO UNDER Colleges, Schools,  
and Divisions  
Resident training program, 97  
Romance Languages and Literatures:  
Courses in, 296-301  
Placement examinations, 52  
Rules of the University, right to  
change, 42  
Russia, courses on, 218, 220, 281, 282
- S
- Sanskrit, course on, 215  
Scholarship, 36-37, 39  
SEE ALSO UNDER Colleges, Schools,  
and Divisions  
Scholarships, 25-29  
Scholastic Aptitude tests, 43, 52  
Schools, Colleges, and Divisions, 5  
Secretarial Studies:  
Courses in, 302-3  
Curriculum in, 61  
Self help, 326  
Semester hour  
SEE Credit Hour  
Shorthand, courses on, 302-3  
Sigma Xi, 328  
Social Sciences, Division of, 68  
Sociology, courses in, 304-6  
Sororities, 330  
South America, courses on:  
SEE Latin America  
Spanish:  
Courses in, 299-301  
Placement examination, 52  
Special Students, Division of, 19, 153-  
54  
Speech:  
Clinic, 307  
Courses in, 307-10  
Staff of Instruction, alphabetical list,  
xxvii-lxiii  
Statistics:  
Bachelor of Arts curriculum in, 60,  
146  
Business and Economic, 147, 149  
Courses in, 311-15  
Student:  
Activities, 327-31  
SEE ALSO Special Bulletin  
Bar Association, 102  
Employment, 326  
Life, 323-31  
Organizations, 328-31  
Publications, 330  
Summer Sessions, 155  
Surgery, courses in, 316-18  
Surveying, courses on, 185, 186, 187  
Suspension:  
SEE UNDER Colleges, Schools, and  
Divisions  
Syphilology, courses in, 189
- T
- Theatre, courses on, 309-10  
Thesis, requirements for, 40  
Transcripts of records, 38  
Trustees:  
Board of, xv-xvi  
Committees of the Board of, xvii-  
xviii  
Tuition, 21  
Typewriting, courses on, 302
- U
- University Students, Division of, 19,  
152  
Urology, courses in, 319
- V
- Veterans, 43-44  
Vocational counseling:  
Courses on, 290, 291  
Master of Arts curriculum in, 147-  
48, 150  
Washington Counseling Center, 43,  
326-27
- W
- Warnings, 55  
Washington Counseling Center, 43,  
326-27  
Withdrawal, 23, 37-38
- Z
- Zoology, courses in, 320-22







THE UNIVERSITY RECORD

SUMMER TERM 1949

FALL AND WINTER TERMS 1949-50



THE UNIVERSITY RECORD

SUMMER TERM 1919

FALL AND WINTER TERMS 1919-20



# DEGREES CONFERRED

## JUNIOR COLLEGE

### ASSOCIATE IN ARTS

NOVEMBER 11, 1949

Abrams, Edwin Fred	D.C.	Close, Franklin John	N.J.
Abrams, Israel Jacob	Calif.	Cochran, Douglas McCord	Pa.
(With distinction)		Coil, Emory Alfred	Ohio
Adams, Frederick Fowler	D.C.	Colevas, Prokopes	D.C.
Adams, James Ronald	W.Va.	Conant, Robert Charlton	D.C.
Agersborg, James Albert Zahl	Ill.	Conway, Emmett Gaddis, Jr.	Va.
Ainley, James Edward, Jr.	Md.	Craig, William Franklin	Va.
Albright, Frank Glenn	W.Va.	Creekmore, Russell Whitfield, Jr.	Va.
Allen, Thomas Howard	D.C.	Creson, David Boone	D.C.
Allinger, Dorothy Ann	Md.	Crichton, Charles Franklin	D.C.
Anderson, Helen Margaret	Md.	Crowley, James Worthington	Tenn.
Anderson, Nora Agnes	Fla.	Dallachiesa, Albert Fortunato	Va.
Andrews, Anna Vaughan	Mass.	Dane, Michael Nicholas	Pa.
Angello, Dolores Bess	N.J.	Davenport, John Hobson	Va.
Anzaldua, Fausto	Tex.	Davidson, Roy Aaron	D.C.
Asha, John Michael	D.C.	Davis, Kenneth Lee	D.C.
Babb, Eugene Campbell	Va.	DeCesare, Rita Lucille	D.C.
Bailey, Charles Robert	D.C.	Detling, Harold Clarence	Md.
Ballard, Ralph Campbell	D.C.	DeUngria, José S.	Philippines
Bargar, John Raymond	Fla.	Devay, Robert Brown	Ohio
Barrow, Claude Arnold	N.C.	DeWitt, Maynard Browning	D.C.
Barwick, Joel Richard	Md.	Diamond, Jack Kenneth	D.C.
Batson, Donald Purdy	D.C.	Diaz, Adolfo Solorzano	D.C.
Bauers, Frank William, Jr.	Tex.	Dichter, Jack C.	N.J.
Beardmore, Walter Harvey	Md.	Dickson, Robert Carl, Jr.	D.C.
Beavers, Virginia Lee	D.C.	DiMartino, Horace Robert	Mass.
Bell, Gerald Irwin	D.C.	Donaldson, John Charles Lochman	Fla.
Beloff, Abraham Philip	D.C.	Donaldson, John Eldridge, Jr.	D.C.
Benson, Carol Eliason	Va.	Donohue, John Andrew	N.Y.
Berger, Samuel Morris	Pa.	Downs, Robert Jack	Okla.
(With distinction)		Drayer, Clarence Prowell	D.C.
Berish, Robert Martin	Pa.	Dries, Edward Thomas	N.Y.
Berlinsky, Louis	D.C.	Dunbar, John Paul	D.C.
Berry, Arland Northwood	Md.	Dunphy, Robert Giles	R.I.
Biller, Paul Stanley	N.Y.	Edgar, Jean Nelson	Va.
Biskar, Aaron	D.C.	Eilers, James Paul	Md.
Bittermann, Kathleen Studdart	Minn.	Eisner, Jerome	N.Y.
Blough, Glennoir Ethel	Pa.	Ellis, Frances Howard	D.C.
Bohan, Joseph James	Pa.	Engelman, Phyllis Claire	D.C.
Bolton, Vivian Reynolds	Pa.	Fadeley, Jane McNeal	D.C.
Borzilleri, Paul Thomas	N.Y.	Falkinburg, Harry James	N.J.
Boulay, René André	Mass.	Feltman, David Brown	Va.
Brown, Catherine Marie	D.C.	Francis, Milton John	Md.
Bruce, William Averett	Okla.	Freer, Barry Sullivan	Ohio
Buchsbaum, David Jules	N.J.	Gallagher, Barbara Blaine	D.C.
Buckberg, Morton L.	D.C.	Garfinkle, Melvin	D.C.
Buehrle, Cyril Anthony	N.Y.	Garrett, Anthony Matthew, Jr.	N.C.
Burdett, Melvin	D.C.	Garver, Clifford Elliott	S.D.
Burton, William Miles	D.C.	Gasque, Martha McKay	D.C.
Byrne, James Anthony	N.Y.	Giannone, Charles D.	N.J.
Cahoon, Lynda Lee	Va.	Gillette, Noeth Bolling	Mont.
Carrick, Lester Forest	D.C.	Gilmour, Robert Andrew	Conn.
Cavallo, Guido	Mass.	Gloyd, Mary Caroline	D.C.
Chillemi, Richard Leo	N.Y.	Goldbaum, Annette Davis	Md.
Christoph, Kathryn Helen	D.C.	Goldman, Albert L.	N.Y.
Clay, Harry Clifton, Sr.	D.C.	Gore, Mary Augusta	D.C.
Clayton, Christopher Sudlow	D.C.	Graff, Wendell Eugene	Pa.



Greenbaum, Hilda Joan	D.C.	Massie, Cary Winston	Va.
Greenburg, Bertram	D.C.	Maupin, James Carey	Calif.
Greene, Edward Allen	Md.	Mauzy, Ann Henderson	Md.
Greene, Harold H.	D.C.	Mazza, Louis Francis	Va.
Grimes, John Francis	Va.	McGriff, LaDonna Lee	Va.
Groves, Gerald Richard	Va.	McKinley, Francis Randel	Utah
Hailey, Lyman Griffith	Va.	McKnight, Michael J.	D.C.
Hall, James Granville, Jr.	Pa.	McMillan, Robert Hampton	D.C.
Hammond, Kenneth Fabian	D.C.	Meadows, Richard Carl	D.C.
Hart, Nelson Perry	D.C.	Meigs, Edward Douglas	Idaho
Hawkins, Herman Edmond	Ga.	Melheim, Arnold Curtis	D.C.
Heller, Milton	D.C.	Merchant, Edward Joseph	D.C.
Hennessey, Charles Edward	Md.	Mercogliano, Charles Eugene	D.C.
Herring, Donald Dewar	Mass.	(With distinction)	
Hildreth, David Melvin	D.C.	Miller, Theodore Arnold	Pa.
Hildreth, Margaret Sage	Md.	Miller, Walter Wallace	D.C.
Hines, Theodore Christian	D.C.	Moore, Patricia Mary	Va.
Hollingsworth, William Leon	Miss.	Morgan, Edward Tull	S.C.
Holloway, John Ennis	Md.	Mosman, Kenneth Freeman	Mass.
Honey, Nancy Lee	Mass.	Muir, Donald Beldon	D.C.
Hulfish, Harriett Virginia Folger	Va.	Mulhall, Francis Joseph, Jr.	D.C.
Hutmire, Edward William	Calif.	Murdock, Robert Barnard	D.C.
Iseri, Kathleen T.	Calif.	Murphy, Patricia Ann	D.C.
Jeffers, John Cordell	Va.	Nalls, John Willard, Jr.	Md.
Jerome, Charles Joseph	N.Y.	Nisson, George Wendell	D.C.
Johnstone, James Bruce	Mich.	Nordholm, Eric Greg	N.Y.
Jones, Benjamin Perry, Jr.	N.C.	Norman, Richard Arthur	D.C.
Jones, Calvin Clark	D.C.	Normandeau, Keith Joseph	Minn.
Jones, Harry Lee, Jr.	Mo.	Nuttman, Harold Franklin	Kans.
Jones, James Mitchell	D.C.	O'Keefe, George Aloysius	Mass.
Kallina, Beatrice Josephine	N.Y.	Olmert, Robert Francis	D.C.
Kannenberg, Myron Hollis	Minn.	Olsavsky, Steve Anthony	Ohio
Karazikas, Eleni Pericles	D.C.	Owens, Marcus Orlando, Jr.	Tex.
Kaslow, Herbert	D.C.	Parker, Thomas	D.C.
Katz, Morton Harry	Md.	Parry, James Davidson	D.C.
Kearney, William Robert	N.J.	Pasbach, Lawrence Robert	Mich.
Kessinger, Charles Daniel	La.	Patsavas, Con Chris	Ill.
Khan, Mohammad Karamatulla	India	Patterson, John Edward	Tenn.
Kim, Grace M.	Hawaii	Peoples, Irving Warren	D.C.
King, Pericles	Va.	Penn, William Allen	Md.
Knowles, Edward William	Mass.	Pierce, Olivia Baulez	Va.
Koike, John Longin	N.Y.	Plaskett, Anne Elisabeth	D.C.
Korn, Norman	N.Y.	Platky, Leon David	D.C.
Korostoff, Bernhard	N.Y.	Poulase, Guss Nicholas	D.C.
Kouzel, Howard	D.C.	Prencipe, Leonardo	D.C.
Kudysh, Morton	N.Y.	Prencipe, Nicholas Vincent	Md.
Kulp, John Wesley	D.C.	Preston, Shirley Andrew	
(With distinction)		(With distinction)	
Kunz, George Theodore	Fla.	Pucher, Katharine Lloyd	D.C.
Landsman, Robert Samuel	Va.	Puzzini, John	Pa.
Lappin, John Eldridge	D.C.	Quenstedt, Una Rita	D.C.
Laurence, Edwin Anthony	D.C.	Rabin, Joseph Edward	N.Y.
Lawson, Alice Joyce	N.Y.	Randolph, John Lewis	Va.
Lennan, Alvin Brooks	Md.	Rappaport, Bernard Raymond	Ill.
Leslie, Charles Walton, Jr.	D.C.	Rector, Alfred Rozier	D.C.
Lewis, Jack Collins	Md.	Reiss, Robert Steuart	Va.
Liesener, Victor Frank Robert	Wis.	Reitman, Robert Stephen	N.J.
Lind, Robert Neal	Va.	Ring, Paul Donald	N.C.
Lindberg, Carl Donald	Md.	Robin, Joseph Siemund	D.C.
Lohr, Betty Ann	D.C.	Roberts, James Winfield, Jr.	Va.
Lowe, Joseph William	W.Va.	Rolph, John Fletcher III	D.C.
Lyons, Lloyd Edward	D.C.	Rosen, David Selig	N.Y.
Mabry, Shirley Ann	D.C.	Rosson, Barbara Ruth	D.C.
MacArthur, Edgar Huston	D.C.	Rowe, Shirley Case	D.C.
Mackensen, Judith Agnes	D.C.	Russell, Melvin Lewis	Kans.
MacKrell, James Joseph	N.Y.	Russell, William Fred	Md.
Magee, Robert Henry	Va.	St. Thomas, Dorothy Laird	D.C.
Mamish, Julia	W.Va.	Salvati, Saverio Ralph	N.Y.
Mankin, Arthur Kenneth	D.C.	Sanchez, Burdette Boardman	Pa.
March, Francis Andrew, Jr.	Va.	Schellenberg, Paul Herbert	Va.
Marshall, John C.	Tenn.	Scherff, Roger Alan	Md.
Martin, Thomas Archie	Ill.	Schram, Dorothy Jean	D.C.



Schuyler, Shirley	Va.	Terrell, Jane Kathryn	Conn.
Seley, Florence Leiken	Conn.	(With distinction)	
Seltzer, Orie	D.C.	Thrift, Sterling Reynolds	D.C.
Shank, Robert Edgar	Md.	Tibbitts, Robert Cash	Mo.
Shapley, Ellen	D.C.	Tilley, Emerson Scott	Md.
(With distinction)		Todd, Vernon Richard	Md.
Sherwood, Frederick	Va.	Tolson, Raymond Lee	Va.
Shields, Benjamin Bayard	Fla.	Trotter, Thomas Kenneth	Va.
Shields, Elise Trigg	Md.	Trussell, Galen Douglas	D.C.
Shoemaker, Randall, Jr.	Va.	Tuckman, Charles William	N.Y.
Siegfried, Robert Ellwood	Ohio	Tyrrell, Richard Campbell	N.Y.
Silver, Charles B.	N.J.	Viguera, Edward Edwin	Fla.
Simmons, Dorothy Jean	D.C.	Walinsky, Edward Pius	Pa.
Simmons, Richard Paul	Md.	Watkins, Henry Lee	Va.
Simpson, Joseph	Calif.	Weingarten, Hyman	N.Y.
Smith, J. Gordon	Md.	Weintraub, William Chodoff	D.C.
Smith, William Parkhurst, Jr.	D.C.	Weitzel, Elizabeth Marceron	Va.
Spinner, Jack Robert	D.C.	Weld, Dorothy Anne	Va.
Squire, William Harry	Pa.	Whitesel, Roy Thornton	D.C.
Steck, Philip Clifford	W.Va.	Whittington, James Gordon, Jr.	N.C.
Sterling, Milton Calvin	Md.	Will, Oscar Vernon	Md.
Stewart, Elijah King	Okla.	Williams, Janice Ruth	D.C.
Stoner, Merle McLaughlin	Pa.	Williams, Marjorie Louise	Md.
Sullivan, Charles Xavier	R.I.	Williams, William Barron	Mich.
Sullivan, John Christian	Md.	Witkin, Eugene	D.C.
Summers, Leonard	D.C.	Wood, Edwin Charles	D.C.
Suntay, Aurora Silvia	Philippines	Wyckoff, Donald Latham	N.Y.
Sutherland, Julian Hoyt	Ohio	York, Warren Monroe, Jr.	D.C.
Swanston, Charles William	Va.	Zanelli, Alfred	N.Y.
Sweet, John Manko	Pa.	Zucker, Morton David	N.Y.
Taeves, Anne	Colo.	Zurad, Bruno H.	Ill.
Telchin, Stanley Shay	Md.		

## FEBRUARY 22, 1950

Abellón, Esther Marina	Cuba	Caldwell, Margaret	Va.
Alexander, Ronald McKenzie	D.C.	Callow, John Henry	D.C.
Alexiou, Louis	N.Y.	Carpenter, William Otis	Ky.
Anderson, Kenneth Arthur	Ill.	Caswell, Ruth Virginia	D.C.
Andrews, Lee Austin	Calif.	Cavallaro, Vilma A.	N.Y.
Andrews, Norman Jacob	N.Y.	(With distinction)	
Antonelli, Francis Anthony	D.C.	Chertoff, Mitchell	N.Y.
Antoun, Edmond John	Pa.	Chrysakis, Joseph Evangelos	D.C.
Arrick, Alma Arlene	Ohio	Cisna, Frances Lathrop	D.C.
Balish, Nicholas John	Va.	Coates, Augusta Maude	Md.
Barnes, Kenneth Clark	N.C.	Coe, Anna Hopton	Md.
Baylinson, Richard Norman	N.J.	Cohen, Bernard	D.C.
Beach, Kenneth Herbert	Ohio	Cohen, Robert Henry	D.C.
Becker, Eugene Joshua	N.Y.	Cohen, Rosa Naomi	D.C.
Becker, Joseph	D.C.	Conason, Emanuel Voltaire	N.Y.
Beilstein, Christian William	D.C.	Conklin, Charles Robert	Va.
Bell, Joseph Thomas	D.C.	Connell, Eugene Ambrose, Jr.	Md.
Bennett, Ralph Berry	D.C.	Cook, William Thomas	D.C.
Berlin, Jerome Irwin	D.C.	Cookson, Joseph William	Kans.
Bernstein, Stanley Bertram	N.Y.	Corkum, Anna Elizabeth	Mass.
(With distinction)		Craft, Robert Harold	D.C.
Betzler, John Richard	Va.	Crandell, William Palmer	Md.
Bialek, Teddy	D.C.	Crisp, John Kibler, Jr.	Ga.
Boehlert, Jessie Clara	N.Y.	Crumpler, Roland	N.C.
Bolt, Robert	N.Y.	Cummer, John Robert	D.C.
Borkowski, Walter Aloysius	N.J.	Cunningham, Catherine Beatrice	Okla.
Boyle, Betty Jean	Wis.	Dalton, Eileen Elizabeth	D.C.
Brady, Thomas Anthony	Mo.	Dalton, Rea Elizabeth	Va.
Brenman, Henry Stephen	N.J.	Dalrymple, James McIver	Va.
Brennan, James Joseph	Pa.	Daly, Elizabeth Teresa	Va.
Brody, Arthur Lionel	N.Y.	DeAngelis, Louis Benjamin	N.Y.
Brownson, Ernest Maitland	N.J.	Delabar, John Henry	Pa.
Brzozowski, Edmund Joseph	D.C.	DeMetz, Mary Katherine	D.C.
Budz, Henry Richard	Mass.	Dempsey, Donald Crammer	N.J.
Burger, Joel Arthur	N.Y.	Devlin, Paul Andrew	Pa.
Burkert, Alfred, Jr.	D.C.	Dietrich, Jack Mitchell	Kans.
Butler, Claude Lee	Tenn.	Dow, Howard Fremont	Va.



Dressel, Robert James	D.C.	Monteith, Alice Jean	Va.
Drimmer, Miriam Weinberg	N.Y.	Moran, Andrew John	Pa.
(With distinction)		Murphy, James Palmer	Tex.
Dudley, Albert Frederick	D.C.	Myers, Thad Prentice, Jr.	Pa.
Duerksen, Sylvia	D.C.	Naehle, Henry Emil	Md.
Duncan, James Thomas	Ga.	Nicolopoulos, Dianna Georgia	D.C.
Earle, Elizabeth Rebecca	D.C.	Nikoloric, Suzanne Mills	Va.
Einbinder, John Collum	Va.	Niles, Jack Stone	D.C.
Eisenberg, Bernard Carl	D.C.	Nolte, Ann Elizabeth	D.C.
Ekman, Donald Quintin	D.C.	Nothstein, Charles Lewis	Okla.
Ellis, James Garfield	D.C.	O'Connor, Richard Leo	Calif.
Farley, Philip John	N.Y.	Oxford, Jack	Pa.
Fedirko, Natalia Bulatkin	D.C.	Padbury, Harry Rines	Maine
Flechl, Kurt Otto	Mich.	Paste, Peter John	Mass.
Fleshman, Wilfred Edwin	Calif.	Peck, Millard, Jr.	Iowa
Foster, James Patrick	D.C.	Pendell, Martha Jane	Va.
Frenkel, George L.	N.Y.	Perlman, Elisheva	Israel
Fry, George Edward	D.C.	Perry, John Kenneth	Va.
Garner, Frederick Reed, Jr.	D.C.	Person, Vernon James	Va.
Gentner, Evelyn Gifford	D.C.	Post, Beverly Suzanne	Ill.
Ghesling, William Marvin	Ga.	Pratt, Curtiss Robert	N.Y.
Gibbs, Ray Allison, Jr.	Va.	Price, Edwin	Md.
Giusti, Natalie Larioff	Mass.	Price, Helen Vera	D.C.
Good, Elizabeth Sarah	Md.	Price, James Travis	Va.
Green, Edward Harrison	D.C.	Primm, Geraldine Viohl	Md.
Green, Harold A.	N.Y.	Pryor, Mary Leah	D.C.
Griffing, Willard Earl	N.Y.	Rainsbury, Robert Charles	Va.
Groettum, Theodore Roger	D.C.	Ransom, Richard Burtus	N.Y.
Haase, Wilbert George	Nebr.	Raynor, Marjorie Hildebrandt	D.C.
Harrington, David Michael	N.J.	Reed, William Clark	Pa.
Harrison, Mignonette Eulalie	D.C.	Rezler, John Edward	D.C.
Hartman, Nona Claire	Calif.	Riggs, Edwin Eugene, Jr.	Va.
Heckman, Alexander Irving	D.C.	Roberts, Richard Edwin	D.C.
Heisler, George Thomas, Jr.	Tenn.	Rose, Herbert Edgar	N.Y.
Hiatt, Howard Herschel	Fla.	Rosenblum, Stephen Clyde	N.Y.
Hoopes, David Spencer	D.C.	Rosenthal, Donald Currie	D.C.
Howard, William Reed	D.C.	Ross, William Hicks	Va.
Howerth, Shirley Claire	D.C.	Roughton, Aurelian Ernest, Jr.	D.C.
Iandolo, Angelo John	N.Y.	(With distinction)	
Irwin, Mortimer Foster	D.C.	Rue, Audrey Hazel	N.Y.
Ishiyama, Kyoko	Va.	Sabatini, Edmond John	Md.
(With distinction)		Sagle, Robert Franklin	D.C.
Jacob, Phyllis Eileen	D.C.	Samaha, Leslie Halim	Ga.
Jasper, James Dudley	Va.	Sauls, John Clinton	Va.
Jones, Charles Clifford	Okla.	Seay, Ralph Matthew	D.C.
Jones, James Absalom	D.C.	Shirey, William Cluff	D.C.
Jorgenson, James Lewis	D.C.	Shuster, Alvin	D.C.
Joy, Helen Maxine	Va.	Sifton, Paul Ginsburg	Md.
Kane, Daniel Raymond	Mass.	Slattery, Richard Gates	N.Y.
Kent, Jack Howard	D.C.	Smith, Charles William	Md.
Kipps, John William	Va.	Smith, Harold Calmes, Jr.	D.C.
Kramer, Marvin Lewis	Va.	Smith, James Mitchell	D.C.
Krentzlin, Julie Anita	D.C.	Smith, Verna Emily	Miss.
Kritt, Barbara Tanya	D.C.	Smith, William Milton	N.J.
Kroner, Lawrence Roy	Ill.	Snyder, Charles Joseph	D.C.
Lacey, Maurice Winters	D.C.	Spaulding, Jo Anne	Pa.
Larson, Donald Eugene	Minn.	Stein, Laura	D.C.
Latino, Gioranna Maria	Mass.	Stevens, Dorothy Chedaker	D.C.
Lawless, William Josselyn, Jr.	Va.	Stevens, Willard Lamont	Va.
(With distinction)		Strain, Mary Charlotte	Md.
Levin, Bernie	D.C.	Stringham, Gale Smedley	Ind.
Loe, Myron L.	D.C.	Stuart, Kenneth Earl	Mass.
Longen, Edmund Herman	S.D.	Sullivan, John Leo	D.C.
Lyle, Robert Eugene	Minn.	Szwed, Clarence Francis	Md.
Malone, Ralph Whatley, Jr.	Md.	Talley, Betty Jane	D.C.
Manoukian, Rachel Elizabeth	D.C.	Tharp, Mary Ann	D.C.
Marlow, Howard Waring	Md.	Thomas, William Bates	D.C.
Mavridis, Photios Adam	Md.	Thompson, Albert Lacy, Jr.	D.C.
McCall, Barbara Ann	Ky.	Thorndyke, Myron Samuel	D.C.
McClellan, Ethel Shoemaker	Pa.	(With distinction)	
Meroney, Louis Roy	Tex.	Tong, Richard Koon Wong	Hawaii
Mills, Jared Warner III	Va.	Torcaso, Roy R.	Wash.
Mohler, Jeanne Claire	D.C.	Tumarkin, Janet Beverly	N.J.



Uehlinger, John Clark	D.C.	Wisner, Carl Edward, Jr.	Va.
Valentini, Philip Endicott	D.C.	Wood, John Fred	N.C.
Vandegrift, Paula Bollenbacher	D.C.	Woodward, John Richard	Va.
Vicino, Dominic Joseph	D.C.	Workinger, George Samuel	Md.
Waite, Nancy Jane	D.C.	Yarbrough, Joseph Benjamin III	D.C.
Walton, Howard Lacy, Jr.	D.C.	Yeager, Mary Ann	D.C.
Weintraub, Leo Martin	N.Y.	Young, Robert Stanley	D.C.
Williams, Earl, Jr.	Ill.	Youngman, Wilbur Hughes, Jr.	Calif.
Williams, Leonard	Pa.		

## MAY 31, 1950

Abend, Phillip Gary	D.C.	Coll, Robert Wilson	D.C.
Abrams, Yehuda Hillel	Md.	(With distinction)	
Adler, Raymond Harold	N.Y.	Contos, William Harry	D.C.
Allen, Nancy Leigh	D.C.	Cooper, Burton M.	D.C.
Alterman, Toby Thelma	Va.	Cordelli, Peter Paul	Pa.
Anderson, Nancy	D.C.	Crassas, William Constantine	D.C.
Andes, Paul Gowdy	Fla.	Cresthull, Esther	N.J.
Andrews, Marilyn Brownfield	D.C.	Cross, Dan Norman	Iowa
Angel, Jerry Irwin	N.Y.	Davis, Hilda Jean	Va.
Arnos, Rose Mary	N.H.	Davis, Jean Marie	Md.
Bagdoyan, Leila Marie	D.C.	Dean, Frank B.	Tenn.
Baker, Jack	D.C.	Dean, Robert Murry	Mo.
Balogh, Stephen Elmer, Jr.	D.C.	Deck, William Meade II	D.C.
Bateman, William Raphaël	D.C.	Devin, Charles, Jr.	N.Y.
Bayer, Jacob Weller	Mo.	Diament, Lila Ruth	D.C.
Becker, Joseph Agula	D.C.	(With distinction)	
Bengston, Ernest Raymond	R.I.	Dickson, William Francis	Va.
Bennett, Harry Bates	D.C.	Dilli, Nancy Tucker	D.C.
Benson, Harriette Miller	Va.	Diorio, David	N.Y.
Benson, Wilbur Earle	D.C.	Dorosh, Edward Peter	N.Y.
Bergman, Melvin John	Va.	Dorsay, Jeannette	Va.
Bernstein, Paul	D.C.	Douglass, John Robert	N.Y.
Bialek, Stanley Morris	D.C.	Downey, Alma Gayle	Nebr.
Binder, Albert	D.C.	Dressler, Dorothy Anne	Pa.
Block, Frederick Laurence	N.Y.	Dulaski, Benedict Joseph	Mass.
Blum, Royal Isaac	D.C.	Dulcie, Jerome Joseph	N.J.
Bosman, Joan Frances	N.Y.	Dulkie, Joseph Augustine	Mass.
Botz, Eugene George	Ind.	Dyer, James Arthur	Md.
Boyer, Joan Zelda	Mass.	Dysland, Robert Carroll	Md.
Brinks, Jean Oliver	D.C.	Ellis, Roberta Anne	Md.
Brody, Leonard Harry	N.Y.	Elman, Josef Katten	N.Y.
Bronstein, Max Wilfred	D.C.	Elmore, Willett	D.C.
Brown, James Robert	D.C.	Famous, Priscilla	Md.
Broz, Richard Francis	Wash.	Farquharson, Sue Wahle	D.C.
Brust, George A.	Md.	Fenton, Patricia Joanne	D.C.
Burhans, Cynthia Constance	Va.	Filipowicz, Casimir Anthony	N.Y.
Burka, Leon Harry	D.C.	Firnbacher, Frederick Stephen	D.C.
Burns, Francis Henry	Pa.	Fisher, Barbara Ann	Va.
Butler, Charles Edward	D.C.	Fitzpatrick, George Ruddell	Pa.
Caffey, Helen Mead	Ga.	Flieger, Howard Wentworth, Jr.	Md.
Callaghan, Frances Goddard	D.C.	Foltz, John Frederick	N.Y.
Cantor, Neil Jay	D.C.	Ford, Robert Nelson	D.C.
Canulla, Guido John	Mass.	Fordham, Frank James	Md.
Caracciolo, Francis Samuel	D.C.	Fowler, Jessie Lorraine	D.C.
Cardano, Ferdinand Sabastian	Md.	Fox, Saul Aaron	N.Y.
Carlin, John Francis	Pa.	Freeman, Aaron Elliott	Va.
Carman, Hazelmarie	Calif.	Freseman, Phyllis Langfitt	D.C.
Carpenter, Edwin John, Jr.	N.Y.	Friedenberg, Ina Ruth	D.C.
Ceolla, Roland Peter	Md.	Gagnon, Henry Joseph, Jr.	D.C.
(With distinction)		Galloway, Esther Augustine	N.C.
Chakeres, Peter	D.C.	Gallup, Elizabeth Hale	Md.
Chapline, Claudia Beechum	Va.	Gans, Joan Regine	N.Y.
Chester, Annabelle Johnnie	Calif.	Gartner, Robert Martin	D.C.
Chocola, Richard Adolph	Pa.	(With distinction)	
Clark, Malcolm Cameron	D.C.	Gentner, Walter Andrew	D.C.
Clausen, Margaret Mary	D.C.	George, Joseph Homen	Mass.
Clear, Jeanne Audrey	D.C.	Giliotti, Peter Alfonso	D.C.
Coburn, Harriette Hartnett	D.C.	Gillespie, Constantine John	D.C.
Coleman, Harvey Ryon	Va.	Gillespie, George John	D.C.



Gimble, Gilbert Yosef	D.C.	Lambert, Peter Baldwin	D.C.
Ginsburg, Manny	D.C.	Lane, Elizabeth Walker	D.C.
Gnatt, Philip Myer	Calif.	Law, Susan Byrdella	D.C.
Goffe, Janis Elizabeth	D.C.	Lee, William M.	D.C.
Goldsmith, Betsy	N.J.	Levinson, Arnold Seymour	Va.
Golin, Gerald	D.C.	Lewis, William Hubert	Va.
Goodsaid, George Herman	D.C.	Lichtenstein, Lucille Gould	Mass.
Gordon, Fulton Ray	D.C.	Lilienkamp, Virginia Ruth	D.C.
Gould, Warren	D.C.	Lindner, Thaddeus Alphonse	N.Y.
Gray, Robert John	N.J.	Link, Robert Wendell	N.J.
Grey, Leo	Va.	Livingston, Gordon Kendal	N.Y.
(With distinction)		Lohman, Richard Herbert	D.C.
Guthery, Upton Keller	D.C.	Long, Billie Ketchie	D.C.
Guy, John Philip	D.C.	Lovell, Guy W.	D.C.
Halak, Eleanor B.	N.J.	Mabry, Carol Joan	D.C.
Haley, Louis Albin	Va.	Macon, Edward Malcolm	D.C.
Hall, Lou Ann	D.C.	Makin, Lloyd John	D.C.
(With distinction)		Malkin, Jack	D.C.
Halpern, Esther	N.Y.	Marciniak, Frank Walter	N.J.
(With distinction)		Marinoble, James Vincent	Va.
Hammond, Mary Evelyn Kent	D.C.	Marlow, Charles Austin	Calif.
Hanbury, Jillian	D.C.	Marowitz, David Daniel	D.C.
Hansel, Roger	D.C.	Marsh, Mary Louise	Va.
Harris, William Penn	Md.	McCarthy, John Robert	Ohio
(With distinction)		McGrew, Clinton Jackson, Jr.	Va.
Harrison, Alexander	Md.	McKay, Fred James	N.I.
Hart, Bobby Jack	D.C.	McMahon, Thomas Anthony	N.J.
Hartford, Thomas James, Jr.	D.C.	McNamara, Richard Vaughan	Iowa
Heart, Margaret Josephine	D.C.	Miller, Charles Robert	D.C.
Hewett, Norma Jean	Fla.	Miller, Herbert Junior	Ohio
Hildebrand, Robert John	Pa.	Miller, Mary	Mass.
Hill, Arlow Feilding	Colo.	Minor, Robert Center	Ga.
Hoffman, Howard Paul	N.Y.	Monsheimer, Louis Bertram	Va.
Hollis, Frank	D.C.	Montague, Helen Bovard	Va.
Houston, Robert Joseph	D.C.	Moore, Patricia Catherine	Va.
Howard, Sidney Harris	N.Y.	Mouré, Rupert Francis	Md.
Hudgins, Ann Shearer	Va.	Mourning, Henry Lee	D.C.
Hui, Wing Yam	China	Mullarkey, James Patrick	Ill.
Hunter, John Behr	W.Va.	Myers, Richard Ira	Pa.
Inglis, Robert Scott	D.C.	Nishi, James Akio	Hawaii
Inserni, Hiram Castillo	D.C.	Nobel, Louis N.	Pa.
Israel, Thomas Sewell	Md.	Novy, James Samuel	Va.
Jack, Paul Summers, Jr.	Va.	O'Donnell, Joseph Michael	Va.
James, Gladys Elizabeth	Va.	Oliff, Edward George	N.J.
Jewell, Joseph Thomas, Jr.	Tex.	Oishin, John Seymour	N.Y.
Jobe, Harrel Kent	D.C.	Ong, Harry Alfred, Jr.	D.C.
Johnson, Marjorie Pennington	Md.	Orenstein, Herbert Hyman	N.Y.
Johnson, Paul John	Ill.	O'Toole, Ursula Elizabeth	Mich.
Johnson, Robert Edwin	N.Y.	Padilla, George Mario	D.C.
Johnson, Victor Eric	Conn.	Pappas, Stephen Steve	Va.
Jones, Claggett Aloysius	D.C.	Parojinog, Simplicio Cuyano, Jr.	D.C.
Jones, Harry Clay	Va.	Paul, Mary Beth Koenig	D.C.
Jones, John Norvill	Ark.	Pell, Arthur Jack	Ill.
Jones, Robert Howard	Va.	Peppers, Richard Langford	
Juárez, Joe Angel	Tex.	(With distinction)	Va.
Judd, Dean Burritt	Md.	Pérez, Wilda C.	Va.
Julius, Richard Friedli	D.C.	Perrott, Virginia Marie	D.C.
Kantrowitz, Daniel George	D.C.	Perry, Beverly	Va.
Kaye, Norman N.	Pa.	Peterson, Patricia Ann	Pa.
Kellam, Donald Swift, Jr.	Va.	Polansky, John, Jr.	Del.
Kennedy, James Joseph	D.C.	Pollard, John Ray	D.C.
Kerish, Burton	D.C.	Pruett, Mary Evelyn	Wis.
Ketner, William Harry	Pa.	Pugh, Lindley Coates, Jr.	Mass.
Kevan, Robert Andrews	Va.	Rawnsley, George William	Md.
King, Joseph Frederick	D.C.	Redmond, Charles Bernhardt, Jr.	D.C.
Klein, George Ralph	D.C.	Reichow, Estelle Vernon	Pa.
Kline, James Frederick	Pa.	Reifsnyder, Harold Allison	Md.
Knight, Merrill Donaldson III	Va.	Reynolds, Patricia Amelia	Mich.
Koepeke, Milton Elwood	Md.	Rhoades, Benjamin Anthony, Jr.	Okla.
Kolovic, Liliانا	Yugoslavia	Richards, Ralph Julian, Jr.	Conn.
Kramer, Joshua	N.Y.	Richardson, Walter John	D.C.
Kyne, Peter John	D.C.	Robbins, Louis Peters	Md.
Laine, Roland Oscar	Va.	Roberts, James Franklin	



Roberts, Nancy Catherine	D.C.	Stoyanoff, Stephen	Pa.
Romansky George Joseph	Pa.	Struthers, Melvin, Jr.	Iowa
Roseman, Byron David	Mass.	Summers, Mary Jane	D.C.
(With distinction)		Surowitz, Irma Selma	D.C.
Rosenthal, Myra Natalie	D.C.	Swortzell, Lowell Stanley	D.C.
Rowe, Kathleen Wilson	D.C.	Szanyi, William Leo	N.J.
Russell, Betty Lucile	D.C.	Talley, Marilyn Hunter	Va.
Ryder, Robert Burton	Conn.	Tauber, Leonard Murray	D.C.
Salzberg, Lorraine Muriel	N.Y.	Taylor, Harry Hall	Conn.
Salzberg, Ruth	D.C.	Taylor, Shelton Billy	Va.
Sanders, William Gerard	Va.	Teczar, Elizabeth Ann	Mass.
Sandwick, Marilyn Jane	D.C.	Thompson, Robert Earl	Mo.
Saunders, Nancy Nell	D.C.	Thrift, William Carrol	D.C.
(With distinction)		Tolliver, Robert James	S.D.
Scaffidi, Alfred	N.Y.	Tomasick, Ruth Alice	Pa.
Scanlan, Sidney Joseph	La.	Toxen, Arnold Martin	D.C.
Scarrow, William Arthur	Va.	(With distinction)	
Schifter, William	N.Y.	Tritle, Richard Reed	D.C.
Schiller, Alvin	Minn.	Udelson, Daniel Gerald	D.C.
Schlesinger, Jean	D.C.	VanZandt, Juanita Seay	Ky.
Schwartz, Simon	Md.	Vespole, Michael James	N.Y.
Seckinger, Daniel Lamont, II	D.C.	Vidal, William	Puerto Rico
Seebold, Robert Elvin	D.C.	Voulgaris, Kristallo	D.C.
Selen, Mary Ellen	Va.	Wagner, Carlene Patricia	N.Y.
Sexton, John Montgomery	Conn.	Waldstein, Anne Marie	D.C.
Shade, Lavern Paul	Md.	Walker, Genevieve Marie	D.C.
Shamie, Emile Robert	N.Y.	Ware, Robert Stephens	D.C.
Shank, Joan Barry	D.C.	Warick, Lawrence John	D.C.
Shaw, Elizabeth	D.C.	Weaver, Patricia Ann	N.Y.
Sheehan, William Francis	D.C.	Weissmann, Max Ludwig	D.C.
Shelley, Francis Joseph	Pa.	Weitzel, James Russell	Md.
Shibley, Francis Wilhelm	Va.	Wells, Rebecca Roe	Ky.
Shirley, Reginald Douglas	N.Y.	Westcott, Raymond Arthur	Minn.
Shreve, Judith Hull	Va.	Westervelt, Frederic Ballard, Jr.	Va.
Shullenbarger, John Albert	D.C.	Whitman, Greta Rae	D.C.
Sincof, Janet Zelda	D.C.	Wilcox, Jessie Elna	Va.
Singer, Allan Milton	D.C.	Willard, William Creighton	D.C.
Sivers, Mary	D.C.	Willett, Marie-Louise	D.C.
Skelly, John Thomas	Cuba	Williams, Elma	D.C.
Smith, Herbert Willard	D.C.	Willson, Robert Crompton	D.C.
Smith, James Oscar	Va.	Wilson, James Frederick	D.C.
Smith, Kendall Owen	Md.	Wilson, Jesse Lee	Mo.
Smith, Richard Henry	Va.	Yazge, Irene Elizabeth	D.C.
Smith, Thomas Lewis	Md.	York, Edgar Duane	Md.
Smith, William Christopher	D.C.	York, Jack	D.C.
Sokolowsky, William	N.Y.	Young, Jeanne Aglae Loring	D.C.
Spilliotis, Niki	D.C.	Yuill, Charles Walter, Jr.	D.C.
Stachura, Wendy Sue	Va.	Zamansky, Eleanor Belle	D.C.
Stanley, Gregory Quin	N.Y.	Zeigler, Joanna Elizabeth	Va.
Stapleford, LeRoy Brown	R.I.	Ziegler, Herman Joseph	N.J.
Stepanek, John James	Ill.	Ziff, Richard Newton	Conn.
Stevens, Joan Isabella	Va.	Zigmond, Faye	D.C.
Stevens, Nancy Reynolds	Va.	Zimmer, Culver Frain	D.C.
Stiefel, Eleanor Brooke	Md.	Zubeck, John Thomas	Pa.
Stirling, Edwin Tillman	D.C.		

## COLUMBIAN COLLEGE

## BACHELOR OF ARTS

NOVEMBER 11, 1949

Anders, Frank Ward, Jr.	Md.	Brandt, Jean	Md.
Bailey, Arthur William	Conn.	Brown, Donald Arthur	D.C.
Baker, William Harold	Ill.	Buschmeyer, Frederick Sherman, Jr.	N.H.
Barnhart, Arthur Gooding	D.C.	(With distinction)	
Barrett, Beverly Mae	D.C.	Carpenter, Gladys Rosemary	Fla.
(With distinction)		Cervantes, Robert Martinez	N.Y.
Bersey, Joseph Bernard	N.J.	Cochran, Dean Farrington	Va.
Best, Harold Lloyd	N.Y.	Cohen, Herbert	N.Y.
Borcherding, Earl William	Wis.	Cummings, Samuel	D.C.
Boyle, Barbara Alice	N.Y.	Dessez, Lester	D.C.
Bradley, Mary Katherine	Va.	Donohue, Harold	Md.



Dorr, Lorita	D.C.	Nelson, Marjorie Bonnie	D.C.
Duncan, John Ogilvy	Va.	Neuhaus, Joan Lawrence	D.C.
Dunn, George Martin	N.Y.	Nonamaker, Charles Henry, Jr.	Pa.
Elkin, Benjamin	Ill.	O'Hara, Edward Michael	Minn.
Esch, Albert Frederick	D.C.	Oliver, Wallace Bryan	Va.
Fellers, Raymond David	N.J.	Paul, Charles Bennett III	D.C.
Flax, Miriam Audrey	N.Y.	Pavis, William Walter	D.C.
Frishman, Karl Herbert	D.C.	Pearce, James DeRemer III	Fla.
Fritz, Charles Walter	D.C.	Pearlman, Al B.	Wis.
Garrett, Paul Weatherly	D.C.	Phillips, Lawrence Vince	D.C.
Geller, Irving	N.J.	Phinney, Alan Yardley	Va.
George, Myra Pittenger	Va.	Price, Betty Anne	D.C.
George, Richard Bennett	Va.	Puente, Joseph I.	D.C.
Gibson, James Frederick	Ill.	Randall, Richard Rainier	D.C.
Gieseking, Charles Frederick	Va.	Roberts, Pauline	Ind.
Goodwin, Robert Joseph	Calif.	Rogal, William Walter	Va.
Gordon, Lester Howard	Mass.	Rue, Gloria Hope	D.C.
Hackaylo, Edward	W.Va.	Schankel, Norman George, Jr.	D.C.
Haddad, Adele Sylvia	Pa.	Schoolfield, Nellie Louise	W.Va.
Hall, Etta Juanita	Ark.	(With distinction)	
Hammel, Bernet George	N.J.	Schwartzbach, Saul Marvin	D.C.
Harrow, Robert Lee	N.Y.	Shesser, Ira	N.J.
Haupt, Charles Caldwell	D.C.	Shipman, Grace Jones	Va.
Haynes, Chester St. George	D.C.	Shnider, Jack Carl	D.C.
Hemby, John Towney	Tex.	Silver, Jacob Samuel	Va.
Hendrix, Arthur Keith	Ill.	Silverman, Maurice Bernard	D.C.
Hollon, Thomas Harry	D.C.	Sloan, Richard	Ill.
Isaac, Charles Martin	D.C.	(With distinction)	
Jasper, Estelle Shirley	N.Y.	Slotemaker de Bruine, Jan Rudolph	Netherlands
Jaynes, John Thomas	Kans.	Small, Leonard	N.Y.
Jennings, Nancy Alice	Md.	Spencer, Mary Anderson	Va.
Johnes, Peretz William	Ohio	Stauffer, Clyde Andrew, Jr.	Pa.
Johnson, Virginia Mildred	D.C.	Stewart, Elijah King	Okla.
Jones, Ailsa Grierson	N.J.	Stickney, Herbert Camp	Miss.
Klapper, Howard Jerome	N.Y.	Sunderman, Shirley Keuthan	Va.
Kraus, Harriet Hill	Md.	Swearingen, Iris Inez	Fla.
Krucoff, Darwin	Ill.	Taffet, Hana	N.Y.
Lagerquist, Walter Waldraff	N.Y.	Tatarsky, Walter J.	Pa.
Larkin, Maureen	D.C.	Telchin, Stanley Shay	Md.
Lebeson, Shirley E.	D.C.	Troop, Harrison Donald	N.Y.
Leer, James Edward	D.C.	Turner, Netta Elizabeth	D.C.
Lever, Irene Helen	D.C.	Walker, Thomas Jefferson	Miss.
Leydon, James Andrew	Mass.	Weinstein, Robert Earl	D.C.
Linehan, Daniel William	Mass.	Weintraub, William Chodoff	Va.
Loyd, Arden Robinson	Va.	Wilkinson, Richard Sterling	Pa.
Martin, Thomas Archie	Ill.	Wineberg, John Walter	D.C.
Mason, Chaytor Diez	Va.	Wolf, Joseph Jay	Ohio
Maxwell, Frederick Brooks, Jr.	Md.	Young, George Ellis	Okla.
McAvoy, Philip James	Maine	Young, Ina Marie	Md.
McClosky, Sylvester John	Pa.	Zilch, Helen Josephine	Va.
Morris, Marian Miles	Ky.	Zimmerman, William III	N.Y.
Neill, James McDow	N.M.	Zweibel, Sidney A.	N.H.
(With distinction)		Zysk, John Joseph	

## FEBRUARY 22, 1950

Adams, Mary Kathryn	D.C.	Darmstadter, Joel	D.C.
Anderson, Loretta May	D.C.	Daube, Robert Walter	N.Y.
Atkinson, Roderick Dhu	Va.	Dean, Mary Kendrick	D.C.
Barsugian, Flora Marie	Va.	Dees, Lola Tidwell	D.C.
Bennett, Betty Ann	D.C.	Ellis, Frances Howard	Kans.
Bon, David McCulloch	D.C.	Elms, Elizabeth Jane	N.C.
Breck, John Robert	D.C.	Faison, Sally Ann	N.C.
Brown, Dennis David	N.J.	Farris, Raymond	D.C.
Carroll, Douglas Stewart	N.Y.	Ferrell, Barbara Ann	N.C.
Chavez, Mary Armijo	N.M.	Fields, Roland Carmel	D.C.
Cohen, Lillian Minnie	D.C.	Fisher, Edith Gramling	Va.
(With distinction)		Fursdon, Robert Henry	D.C.
Curtiss, Jeanne Marguerite	Md.	Gerhard, Edmund James Joseph	N.J.
Cwajgiel, Leon	Israel	Granger, Patricia Laura	D.C.
D'Amico, Albert J.	D.C.	Gray, George Howard, Jr.	N.Y.
B.S. 1948, American University		Greenwald, Robert Frederick	



Harris, Emmett Watkins	Va.	Rowan, John Carey	Pa.
Hewett, Ellen Nancy	N.Y.	Ruark, James Clay	D.C.
Hines, Theodore Christian	D.C.	Sallas, Gustav Adolph	D.C.
Jacobs, Sidney Powell, Jr.	Va.	Sartor, John Douglas	S.C.
Johnson, William Bowman	Pa.	Schatz, Louis	Va.
Kaden, Rita	N.J.	Schreiner, Margaret Abramitis	N.J.
Kananack, Barbara Audrey	N.Y.	Sebastian, Elsie	Conn.
Kantrowitz, Gerald	Conn.	Sebastian, Virginia Jean	Conn.
Klafter, Leonard	N.J.	Servais, Raymond Alois	Wis.
Komito, Milton Feldman	Ohio	Shapiro, Laura Leib	N.Y.
Lathrop, Richard Poyneer	Va.	Siegfried, Robert Ellwood	D.C.
Lawson, Howard Birger	Va.	Simms, Shirley Hazen	D.C.
Lentz, Walter Scott, Jr.	Tenn.	Smith, Francis Murphy	N.Y.
Levar, Herman Henry	Mass.	Solal, Jean Louis	France
Lush, Roberta Cregier	Tenn.	Stockton, Lorraine Maley	Tex.
Mandel, Nathan	N.Y.	Sullivan, Nancy Ruth	D.C.
Marlow, Howard Waring	Md.	(Special honors in French)	
Martin, Edward Eugene	Nebr.	Tolson, Evelyn Hurd	D.C.
Martin, Mary Carolyn	D.C.	Trump, Elizabeth Barbara	Md.
McCarty, Jacqueline Logan	Va.	Turney, Joanne	Va.
McCue, Ignatius Lawrence	Ohio	Vance, Catherine Peter	D.C.
McKinley, Francis Rendel	Utah	Vandegrift, Paula Bollenbacher	D.C.
McKnight, Michael J.	D.C.	Wallerstein, David Daniel	N.Y.
Meyer, Hanny	N.Y.	West, William Royster	Va.
Mills, Katharine Jayne	D.C.	Westermann, Harland Walter	D.C.
Montague, William Eugene	D.C.	Wiggins, Patricia Ann	D.C.
Mulhearn, Rupert Albert	R.I.	Winchell, Ralph Ellis	Okla.
Murphey, Elton Ira, Jr.	Tenn.	Winters, Wallace Dudley	N.Y.
Nordholm, Eric Gregg	N.Y.	Wolfe, Eugene Noel	W.Va.
O'Leary, John Francis	Nev.	Worden, Dwight Geer	N.Y.
Parker, David Eric, Jr.	Tex.	Zanoni, Candido Peter	Minn.
Parmeter, Margaret Anne	Minn.	Ziehl, Wilbur Henry	Wis.
Pasco, Nicholas Daniel	Mass.	(With distinction)	
Paul, LeRoy Spencer	D.C.		

## MAY 31, 1950

Aberg, William Arvid, Jr.	D.C.	Campbell Ann Elizabeth	Va.
Adams, Josephine Mary	N.Y.	Carothers, Constance Olive	Mass.
Altmire, Herbert Daniel	D.C.	(Special honors in Religion)	
Amram, Mariana Beulah	D.C.	Caruso, Mollie Jean	N.J.
(With distinction)		Cassidy, Sally Ann	D.C.
Andrews, Marilyn Brownfield	D.C.	Cassity, Donn Edward	Utah
Ashdown, Katherine Jean	Md.	Cavallo, Guido Anthony	Mass.
Bacon, James Everett, Jr.	Md.	Chorost, Helen	N.Y.
Bailey, Wilma Blanche	D.C.	Clore, Nona	D.C.
Balli, Carl Eugene	Fla.	Coe, Anna Hopton	Md.
Baumann, Edward Norman Ralph	N.Y.	Coil, Emory Alfred	Ohio
Beaver, Carol Westbrook	D.C.	Collier, William Edward	Wash.
Becker, Joseph Agula	D.C.	Colot, Evangeline Wilson	Md.
Beckman, Gordon Walter	N.Y.	Conrad, James Calvin	Va.
Bell, Daniel Harrity	Va.	Cooke, Robert George	Va.
Bell, Gerald Irwin	N.Y.	Cooper, Leonard Frederick	N.J.
Bennett, Joan Kathleen	Pa.	Courtright, Ann	Md.
Benson, Mendell Tourover	D.C.	Cox, Herman Elmer	S.C.
Binzell, Gloria Miller	Ky.	Cronin, James Joseph	N.Y.
Blanck, Eleanor Rebecca	D.C.	Crowley, James Worthington	Tenn.
Bolt, Robert	N.Y.	Currier, Wade Richardson	D.C.
Boyle, Elizabeth Jean	Wis.	Daugherty, Mary Barbara	Ind.
Brackett, Lois Anne Wallerstedt	Va.	Davis, David Stanley	Ohio
Brake, Eugene	W.Va.	(With distinction)	
Briller, Shirley Estelle	N.Y.	Davis, Mary	D.C.
Brodnan, Betty Jane	Wis.	Davis, Richard Frantz	Va.
(With distinction)		Dean, Benjamin Franklin	D.C.
Brown, Doris Blandena	N.C.	Delaney, John Aloysious	Mich.
Bruce-Briggs, Florence James	D.C.	Dentz, Robert Joseph	D.C.
Burchard, Kathryn Anne	N.J.	Devan, Christopher Bartram	D.C.
Burks, Harold Allen	Ky.	Didlake, Betty Gore	Va.
Bush, Jeremiah Estell	Pa.	Diffenderfer, Anne Lenoir	D.C.
Byrne, James Anthony	N.Y.	Dodson, Elba Aileen	Va.
Bywater, Maurice John	Va.	Dressel, Robert James	D.C.
Caldwell, Margaret	Va.	Dunaway Helen Elizabeth	Iowa



Dunn, Constance June	N.Y.	Hunter, Donald VanOsdal, Jr.	Md.
Dunnington, Elgin Adams, Jr.	Md.	Huntt, Estelle Elizabeth	Md.
Dupuy, Harold James	La.	Johnson, John Sterling	D.C.
Durham, Mary Sherrill	Ky.	Johnstone, James Bruce	Mich.
Dwass, Shirley Labowitz	D.C.	Jungblut, Edward Wilmont	N.J.
Eisner, Mark, Jr.	N.Y.	Kahn, Cathleen Louise	N.Y.
Ellis, Ruth Joy	Md.	Kamemoto, Fred Isamu	Hawaii
Enzor, Thomas Henry, Jr.	Va.	Kay, Harold Henry	Va.
Erenthal, Joseph	N.Y.	Kent, Jack Howard	Fla.
Fackler, Walter David	Minn.	Kim, Grace Moo Kung Wha	Hawaii
(With distinction—Special honors in Economics)		King, Pericles	Va.
Falk, Stephen Ackley	Conn.	Kinsman, Robert Gordon	Md.
Farris, Frederick Joseph	Va.	Kirstein, Sidney Leonard	D.C.
(With distinction)		Klein, Leonard Adam	N.Y.
Farwell, Natalie Anna	N.J.	Koolman, William, Jr.	Minn.
Fausel, Walter Eugene	N.J.	Koplovitz, Rose	Pa.
B.S. 1929, Pennsylvania State College		Kutz, Judith	D.C.
LL.B. 1948, Washington and Lee University		Lapin, Earl Michel	N.Y.
LL.M. 1949, The George Washington University		Layne, Virginia Ellen	D.C.
		Lebrecht, Richard	N.Y.
		(With distinction)	
Featherstonhaugh, Arthur Cambronne, III	Md.	Lennan, Alvin Brooks	Md.
Floyd, Charles Howard	D.C.	Leslie, Annavee Beverly Faulkner	Md.
(With distinction)		Levart, Greta Atkin	D.C.
Forcum, James Evans	Md.	Levin, Irving	N.J.
Ford, John Joseph	N.J.	Linebarger, Louise O'Reilly	D.C.
(Special honors in English)		Litz, Paul Robert	D.C.
Fry, Ernest William	Va.	Longfellow, Don Woodward	D.C.
Fryer, Dorothea Constance	Va.	Longyear, Robert Rudston	Mass.
Gaines, Robert Wesley, Jr.	Va.	Loomis, Maxine Ann	Ill.
Gasque, Martha McKay	D.C.	Lovewell, Suzette	D.C.
Gephardt, Thomas Steuber	Ind.	Lundgren, Susanne Stone	D.C.
Gibbs, Ray Allison, Jr.	Va.	Lyman, Marjorie Anne	Va.
Gillard, William Henry	D.C.	MacCormick, Wilfred Raymond	D.C.
Gilmour, Robert Andrew	Conn.	MacDougall, Dougall	N.Y.
Gittelman, Elinor Ann	N.J.	Machlis, Franklin Elliott	D.C.
Glazer, Harry Bernard	D.C.	Maples, Houston Ledbetter, Jr.	Md.
Gleason, Georgetown Elizabeth	N.Y.	March, Christian Laurin, Jr.	N.Y.
(With distinction)		March, Francis Andrew, Jr.	D.C.
Glenn, Rosemary	N.J.	Martin, Peter John Calvert	N.Y.
Glickman, Lois Harriet	N.J.	Mason, Gwendolyn Hunsicker	Va.
Goldfarb, Louise Marilyn	D.C.	Massie, Cary Winston	Va.
Gravitz, Melvin A.	D.C.	(With distinction)	
Gray, Frederick Charles, Jr.	N.Y.	Mattson, Arthur Richard, Jr.	D.C.
Grayson, Sibyl Doris	Va.	Matulis, Florence Frances	N.J.
Griffin, Leonard Lee	Nebr.	McCall, Chester Hayden, Jr.	Md.
Griffiths, Mary Cecelia	Va.	McDowell, Janet Beverly	Md.
(With distinction)		McDowell, Mildred Ann	D.C.
Gritz, Alexander	D.C.	McLaren, Margaret Campbell	D.C.
Grodin, Herbert	N.Y.	McLynn, James Michael	Md.
Hall, Mary Viola	D.C.	McMeel, John Wallace	D.C.
Hallman, Pauline Pearl	Va.	McMillan, Robert Hampton	Ga.
(Special honors in Journalism)		McRory, William Francis	D.C.
Hansen, Walter Daniel	D.C.	Meier, Sarah Witten	Tex.
Hanson, Jean Lavonne	Wis.	Mendenhall, Margaret Harrilyn	D.C.
Harlan, John Cooper	Va.	Meredith, Ellis Edson	
Harrison, Archibald Chapman, Jr.	D.C.	A.B. 1947, University of Chicago	N.Y.
Harrison, Eleanor Smith	Va.	Messing, Nadia Sybil	Ind.
Harrison, Elizabeth Toupasz	Md.	Michie, James Reginald	Ohio
Hartley, Jean Doris	D.C.	Miller, Herbert Junior	D.C.
Haynes, Norma Edith	Va.	Miller, Jean Agnes	Mass.
Head, Almaria	D.C.	Miller, Mary	La.
Hebert, Paul Edmond	Mass.	Moise Ridgley, Jr.	Va.
Hendershot, Gladys Elaine	Md.	Monteith, Alice Jean	Va.
Herwig, Anne Hildegard	Va.	Morgan, Edward Tull	D.C.
Hess, Charlotte Rebecca	D.C.	Morlock, Harry Kenneth	Okla.
B.S. 1945, Temple University		Morrison, Mary Margaret	Mass.
Hill, Marjorie Ann	D.C.	Murphy, Eleanor Marguerite	Va.
Hines, Willamette Patricia	Canal Zone	Myers, John Dallas, Jr.	Kans.
Hines, William Albert	Tenn.	Nuttman, Harold Franklin	D.C.
Horvath, Leo James	Pa.	Olshaker, Irving Herman	Md.
B.S. 1942, Pennsylvania State College		Ormond, William Berkeley	D.C.
		Ostrich, Ralph	



Pacl, Thomas Rudolf, Jr.	D.C.	Shinn, Charles Curtis	Md.
Panor, Marie	D.C.	Siegler, Judith Ellen	N.J.
(With distinction)		Silver, Charles B.	N.Y.
Parker, Thomas	D.C.	Silver, David Henry	N.Y.
Parkinson, Kenneth Wells	Md.	Simmons, Dorothy Jean	D.C.
Parry, James Davidson	D.C.	Singer, Elaine Betty	N.J.
Patsavas, Con Chris	Ill.	Singman, Julian Howard	D.C.
Payne, Joyce Lee	Va.	(With distinction—Special honors in Economics)	
Pearlman, Belle	D.C.	Sithens, Edward Samuel	Md.
Penningroth, Ann	D.C.	Slattery, Richard Gates	Md.
Perce, LeGrand Winfield, III	Pa.	Sloane, Edward Frederick	Md.
Perna, Louis Robert	D.C.	Smith, Harold Calmes, Jr.	Md.
Peterson, Nad Alma	Utah	Smith, Margaret Anne	D.C.
Picciano, Marie Emile	D.C.	Smookler, Morton Bernard	Del.
Pierce, Jana Marie	D.C.	Snook, Katherine Cosandey	D.C.
Platky, Leon David	D.C.	Solberg, Marian Ruth	D.C.
Poole, Robert Smallwood	D.C.	Sorenson, Barbara Jeanne	N.Y.
Porro, Ralph Anthony, Jr.	N.Y.	Spruce, Frances Blythe	Md.
Primm, Geraldine Viohl	Va.	Srnka, Sylvia Anita	Md.
Proctor, Lucy Rebecca	Tex.	Stambler, Howard Victor	D.C.
Quenstedt, Warren Daley	D.C.	Start, Barbara Lee	Va.
Quigg, Barbara Lou	Va.	Stone, Barbara Nell	Va.
Quinn, Mary Elizabeth	Md.	Stoyanoff, Stephen	Pa.
Quinnam, John Wilson	Maine	Strauss, Betty Farber	N.Y.
Ramsay, Gwendolyn Clare	N.Y.	Strawbridge, Lawrence William	D.C.
Rawlings, Joseph Edwin, Jr.	Md.	Stroupe, Ray McKinley, Jr.	Va.
(With distinction)		Summerlin, Virginia Vandergrift	D.C.
Reid, Alexander Blann	Va.	Surasky, Bernard Arthur	Calif.
Reifsnnyder, Sally Ann Evans	Pa.	Talley, Betty Jane	Md.
Reiss, Robert Steuart	Va.	Tanner, Seymour William	N.Y.
Reno, Raymond Howard	Ind.	Taylor, Marvin Elliott	S.C.
Ricketts, Noble George	D.C.	Teagle, Ernest Howard	D.C.
B.S. 1920, United States Coast Guard Academy		Terrell, Jane Kathryn	Conn.
Robbins, Walter Lewis	D.C.	(With distinction)	
Roberts, Beverley Jean	D.C.	Teske, Elaine Theodora	Wis.
Roberts, Mary Martitia	Ark.	Thompson, Dorothy Morse	D.C.
Rogers, Charlotte David	Ky.	Thompson, Elizabeth Anne	D.C.
Rogers, Rejinal	Wis.	Thompson, Harry Francis	Wis.
Rose, Herbert Edgar	D.C.	Ticktin, Howard Erwin	D.C.
Ross, Joseph Hunter, III	Md.	Treacle, Hugh Charles	Md.
(Special honors in Art)		B.S. 1941, University of Maryland	
Ross, Ronald McKenzie	D.C.	Trussell, Galen Douglas	Md.
Rowe, Kathleen Wilson	D.C.	Vann, Maurine Elizabeth	Md.
Ruben, Max Samuel	W.Va.	Vidal, William	Puerto Rico
Rudy, Lester Eugene	D.C.	Viguera, Edward Edwin	Fla.
Rupert, Mary Martha	Ga.	Vorbach, Charles Frederick	N.J.
Saltz, Ethel Jean Kowan	Md.	Wagshal, Jerome Stanley	D.C.
Salvati, Saverio Ralph	N.Y.	(With distinction)	
Sandmeyer, Melvin Wesley, Jr.	D.C.	Walden, Mary Sanders	Ohio
Sauber, Frank	D.C.	Walsh, Josephine Ann	D.C.
Saville, John William	Md.	Warren, Mary Lowell	D.C.
Schantz, Wilmer Shelly, Jr.	D.C.	Watkins, William Tatum	Fla.
Schram, Dorothy Jean	Va.	Wessell, Robert Glenn	Ill.
Schwartz, Harryette	D.C.	(Special honors in Journalism)	
Scollon, Kenneth Martz	D.C.	White, Horace Walter	Calif.
Sears, Lillian Floyd	Tex.	Whitesel, Patricia Aylward	D.C.
Senchyna, Thomas Joseph	N.Y.	Wiesman, Benjamin	D.C.
Sheppard, William Jacob	Va.	Wolff, Catherine Jean	N.Y.
Sherard, Virginia Mae	Tex.	Wolman, Pearl	D.C.
Sherwin, Herbert David	Mass.	Wygod, Catherine	D.C.
Shettel, Harris Harlan	Pa.	Zasada, Arthur Stephen	Va.

## BACHELOR OF SCIENCE

NOVEMBER 11, 1949

Ball, Charles Emmet	D.C.	Cain, George Stepkin	D.C.
Barkin, Gilbert Donald	D.C.	Campbell, Mildred Ann	D.C.
Blechnan, Martin George	N.J.	Davis, James Vincent, Jr.	Va.
Brown, Russell Martin, Jr.	Md.	Dragoo, Roland Paul	D.C.
(With distinction)		Edwin, Gabriel	D.C.
Buss, JoAnne Marilyn	Va.	Hornstein, Ida Edith	D.C.



Ingram, Robert Lee	N.C.	O'Brian, Evelyn Kuntz	Iowa
Jass, Andrew Edward	N.Y.	Rosenblum, David Joseph	N.Y.
Kimmel, Vivyan Mary	D.C.	(With distinction)	
Kurtz, Stanley Morton	D.C.	Shapiro, Paul	D.C.
Loomis, Gilbert Brainard, Jr.	N.Y.	(Special honors in Mathematics)	
Miller, Samuel Duncan	Okla.	Sotta, Robert Eugene	Kans.
Norris, Joseph Kieffer	D.C.		

## FEBRUARY 22, 1950

Botts, Max Eugene	Ill.	Maloney, William Everett	Mass.
Bultman, John Dale	Ill.	Michael, Irving	D.C.
Cisna, Frances Lathrop	D.C.	Ozburn, Ernest Eugene	Ga.
Davison, Martin Louis	D.C.	Petty, Richard Alden	Va.
Gargus, James Leon	D.C.	Rothstein, Nathaniel	N.Y.
Hatch, Francis Joseph	Md.	Skelton, Robert T.	N.Y.
Hedges, Richard Henry	Md.	Susser, Arthur	N.J.
Hogan, Douglas LeRoy	D.C.	Weinstein, Harvey Harold	D.C.
Macri, Frank John	Md.	Wiggs, Deems Norwood	N.C.
A.B. 1943, University of Maine		Yevick, John George	Pa.

## MAY 31, 1950

Altszuler, Norman	Conn.	Pancoast, Eunice Billings,	D.C.
Bechtoldt, Cletus Joseph	Ill.	Pappas, James Sophocles	Tex.
Briggs, Raymond Westcott, II	D.C.	Parker, John Elliott	N.Y.
Brodie, Loy Hall, Jr.	D.C.	Puzzini, John Vincent	Pa.
Brown, Alice Knowles	Va.	Reeves, Richard Lewis	Va.
Bunker, Grace Isabella	Md.	Roberts, Henry, Jr.	N.J.
Burns, Eugene Joseph	N.J.	Robertson, Wilbert Joseph, Jr.	D.C.
D'Arezzo, Louis Robert	R.I.	Rozansky, Beverly Ruth	D.C.
Daugherty, Floyd Norton, Jr.	D.C.	Ruboy, Jordan Sumner	Mass.
Dreka, Mary Catherine	D.C.	Schactel, Norman Herman	N.J.
Dunn, Arnold Samuel	N.Y.	Schreiber, Samuel Michael	Mich.
Everett, Franklin Milton	D.C.	Schuman, Larry	N.Y.
Febles, Francisco, Jr.	Puerto Rico	Shepard, Robert Stanley	D.C.
Fitch, Charles Thomas	Md.	Singer, Lawrence Robert	D.C.
Gannon, Albert William	N.J.	Spatz, Murray	N.Y.
Hanst, Philip Lincoln	Md.	(With distinction)	
(With distinction)		Steele, Lendell Eugene	N.C.
Johnson, Leslie Addison	Ohio	Sterling, William Norton	D.C.
Korn, Norman	N.Y.	Stockard, Charles Geer	Va.
Lidsky, Martin David	N.Y.	Taylor, Herbert Bradley	Fla.
Lum, David Walker	D.C.	Ward, John Wesley	Tenn.
Mann, Betty Lou	Md.	Weaver, Henry David, Jr.	Va.
Michelitch, Edward	Va.	Weingrad, Richard Herbert	N.Y.
Mohler, John Robbins, II	D.C.	Winston, Anthony	D.C.
Moore, Douglas Hamilton, Jr.	Md.	Zinn, Myron Bernard	N.Y.
Mueller, Peter Klaus	D.C.	(With distinction)	
Naylor, Guy Rodgers, Jr.	Md.		

## MASTER OF ARTS

## NOVEMBER 11, 1949

Ashmore, Charles DeLoach	Ga.	Falk, Gloria Halpern	N.Y.
A.B. 1938, Harvard University		A.B. 1947, The George Washington University	
Bishop, George Edward	Mass.	Gilford, Leon	N.Y.
A.B. 1943, The George Washington University		A.B. 1939, Brooklyn College	D.C.
Bloom, John Porter	N.M.	Goldberg, Solomon Charles	
A.B. 1947, University of New Mexico		A.B. 1948, University of Virginia	D.C.
Cohen, Howard Martin	N.Y.	Greenberg, Bernard Louis	
A.B. 1948, The George Washington University		A.B. 1941, Oberlin College	Md.
Faith, Don Carlos	D.C.	Kyriazis, Chris William	
A.B. 1949, The George Washington University		A.B. 1948, The George Washington University	



Laney, Arthur Rufus, Jr. A.B. 1947, The George Washington University	D.C.	Rovner, Philip A.B. 1948, The George Washington University	D.C.
Lebergott, Ruth Wellington A.B. 1940, University of Michigan	Mich.	Shapiro, Daniel Murry A.B. 1948, The George Washington University	N.Y.
Licht, Irving Harold A.B. 1942, Ohio University	Ohio	Smith, LeRoy Walter A.B. 1947, American University	Md.
Mastropaolo, Salvatore B.S. in Ed. 1942, College of the City of New York	Va.	Stucke, Adela Leona A.B. 1941, The George Washington University	Tex.
Matthews, Loren Allen A.B. 1940, Union College	Md.	Turner, Marie-Louise Ralph A.B. 1944, The George Washington University	Pa.
Minear, Verna Howard A.B. 1937, University of Denver	Nev.	Van Story, James Cornelius, Jr. A.B. 1948, The George Washington University	D.C.
Moan, Jeanne Corkhill A.B. 1935, Seton Hill College	Pa.		
Pringle, Dorothy Smallwood A.B. 1930, Goucher College	Pa.		
Rose, Jeanne A.B. 1933, College of William and Mary	Md.		

## FEBRUARY 22, 1950

Anthony, James Nicholas A.B. 1948, The Citadel	S.C.	Leahy, William Vincent Crahan A.B. 1944, University of Pennsylvania	Vt.
Bibolt, Roland Henry A.B. 1942, University of Arizona	Ariz.	Lewis, James William A.B. 1933, Maryville College, Tennessee	D.C.
Faison, Edmund Winston Jordan A.B. 1948, The George Washington University	N.C.	Noren, Morris Keith A.B. 1948, University of Oregon	Oreg.
Freeman, Rhoda Golden A.B. 1948, Hunter College	N.Y.	Parry, Eleanor Elizabeth A.B. 1941, Taylor University	D.C.
Goldstein, Daniel B.S. 1948, University of Baltimore	Md.	Rauch, Arthur S. A.B. 1947, The George Washington University	D.C.
Green, Ann Ralston B.S. 1945, Wilson Teachers College	D.C.	Russler, William B.S. 1942, College of the City of New York	N.Y.
Hutton, Daniel Cogdell A.B. 1947, University of Utah	Va.	Thurston, Virginia Sweeney A.B. 1925, West Virginia University	W.Va.
Jacobs, Milton A.B. 1948, The George Washington University	Pa.	Toomey, William Joseph A.B. 1928, A.M. 1930, St. Louis University	D.C.
Johnson Peter Herbert A.B. 1948, The George Washington University	Miss.	Voelpel, Jack Clare A.B. 1948, The George Washington University	D.C.
Jones, Ruth Elsie A.B. 1940, Baylor University	Tex.		
Krehbiel, Mary Lou A.B. 1946, The George Washington University	Ohio		

## MAY 31, 1950

Adkisson, Kathryn Eloise A.B. 1937, University of Illinois	Ill.	Burdsall, Lorna Nell A.B. 1949, The George Washington University	Conn.
Baroff, George Stanley B.S. 1948, The George Washington University	N.Y.	Dinsmore, Ruth Ann B.S. 1940, State Teachers College, Worcester, Mass.	Mass.
Baruch, Maurice Jaques B.S. 1935, College of the City of New York	N.Y.	Dunn, Theodore Franklin A.B. 1948, The George Washington University	N.Y.
Bates, Frederick LeRoy A.B., 1949, The George Washington University	Va.	Fichandler, Zelda Diamond A.B. 1945, Cornell University	D.C.
Blankenheimer, Bernard A.B. 1941, Brooklyn College	N.Y.	Hazur, Paul John A.B. 1948, The George Washington University	Va.
Brooks, Joseph James B.S. 1946, Purdue University	D.C.	Jaffe, Irving Stanley A.B. 1945, University of Michigan	N.Y.
Brown, Stanley Wayne A.B. 1949, Ohio State University	Ohio		



King, James Cecil	Pa.	Robbins, Chandler Seymour	Md.
A.B. 1949, The George Washington University		A.B. 1940, Harvard University	
Kupperman, Morton P.	N.Y.	Ruark, James Clay	D.C.
B.S. 1938, College of the City of New York		A.B. 1950, The George Washington University	
Macpherson, Alan Campbell	Va.	Simpson, Roxie Collie	N.C.
B.S. 1943, University of Maryland		A.B. 1932, Meredith College	
Matheson, John Douglas	Mont.	Snodgrass, Ann Browning	D.C.
B.S. 1933, United States Military Academy		A.B. 1930, Smith College	
Myerson, Jacob Myer	D.C.	Sowards, Leona Noel	D.C.
A.B. 1949, The George Washington University		A.B. 1947, Municipal University of Wichita	Iowa
Nahm, Doris	Md.	Stelck, William Ardell	N.J.
A.B. 1949, The George Washington University		A.B. 1949, Drake University	
Nowak, Leopoldina Antonie	Ill.	Stibravy, Lois Elaine	W.Va.
A.B. 1947, The George Washington University		A.B. 1942, The George Washington University	
O'Brien, Tatiana Bosse	D.C.	Toompas, Charles Arthur	Canada
A.B. 1946, The George Washington University		A.B. 1938, University of West Virginia	
Ritchey, Mary Ruth	Pa.	Wrong, Elizabeth June	
A.B. 1947, Mount Holyoke College		A.B. 1947, University of Toronto	

## MASTER OF SCIENCE

NOVEMBER 11, 1949

Abbott, Robert Tucker	Va.	Krivoy, William Aaron	D.C.
B.S. 1946, Harvard University		B.S. 1948, Georgetown University	
Bacchus, Azeez	British Guiana	McCarron, John Daniel	N.J.
B.S. 1947, Howard University		B.S. 1948, Georgetown University	
Berman, Harold John	D.C.	McCarten, William G.	N.H.
B.S. 1948, Georgetown University		B.S. 1945, University of New Hampshire	
Bourke, Anne Rosaleen	Md.	Miller, Caroline Parkinson	D.C.
B.S. 1937, University of Maryland		B.S. 1943, The George Washington University	
Brinks, Walter Joseph	D.C.	Modlin, Albert Jay	D.C.
B.S. 1943, Georgetown University		B.S. 1948, The George Washington University	
Cammer, Margaret Ann	Va.	Rossi, Marian Elizabeth	Conn.
B.S. 1948, The George Washington University		A.B. 1945, Trinity College	Pa.
DeKornfeld, Thomas J.	Md.	Wiggins, Thomas Arthur	
B.S. 1948, The George Washington University		B.S. 1942, Pennsylvania State College	Colo.
Gordon, Howard Leo	D.C.	Willson, John Tucker	
B.S. 1948, Georgetown University		B.S. 1948, The George Washington University	
Haggart, Jane	D.C.		
B.S. 1949, The George Washington University			

FEBRUARY 22, 1950

Aarons, Isadore Alfred	Ga.	Kolb, Robert Warren	Md.
B.S. 1933, University of Chicago		B.S. 1941, University of Maryland	
Beeman, Jean Saperstein	Md.	Kramer, Norman Clifford	N.Y.
A.B. 1946, University of Richmond		B.S. 1948, The Citadel	China
Bernstein, Charles Nathaniel	N.Y.	Hui-Chen, Lu	
B.S. 1940, College of the City of New York		B.S. 1943, Cheeloo University, Shantung, China	Md.
Carson, Arthur Nacole	D.C.	Solow, Max	
B.S. 1944, California Institute of Technology		B.E.E. 1943, The George Washington University	Md.
Einheber, Albert	Pa.	Throne, Junior Arthur	
A.B. 1948, The George Washington University		B.S. 1939, Milwaukee Teachers College	



## MAY 31, 1950

Brownson, Robert Henry	Va.	Meyer, Myrtle Isabelle	D.C.
B.S. 1948, John Carroll University		B.S. 1942, Rhode Island State College	
Laney, Culbert	Md.	Munan, Louis	N.Y.
B.S. 1941, Utah State Agricultural College		A.B. 1948, The George Washington University	
Liang, Maria Mu-Lian	N.Y.	Stopak, Jacob Henry	D.C.
M.D. 1942, Medical School of National Sun Yat Sen University		B.S. 1949, Georgetown University	

## THE SCHOOL OF MEDICINE

## DOCTOR OF MEDICINE

## MAY 31, 1950

Abraham, Abe Samuel	Calif.	Gillman, Robert David	D.C.
B.S. 1938, Westminster College		A.B. 1939, B.Mus. 1940, Yale University	
Avery, John Lawrence	D.C.	A.M. 1946, Columbia University	
B.S. 1937, University of Maryland		Green, Jess Downing, Jr.	Va.
M.S. 1939, The George Washington University		A.B. 1944, University of Kansas City	N.Y.
Aye, Ralph Claxton	Ill.	Guerin, Bernard	
B.S. 1940, M.S. 1941, Northwestern University		B.S. 1944, Louisiana State University	
Barefoot, Julius Jackson	N.C.	M.S. 1946, The George Washington University	
Barefoot, Verna Young	N.C.	Hamby, Alice Waters	Ky.
B.S. 1938, University of Cincinnati		A.B. 1943, Transylvania University	
M.S. 1945, University of Chicago		Haslup, Allen Lee	Fla.
Barila, Timothy George	N.M.	Holzworth, Dorothy Catherine	Md.
Barnett, Mary Helen McConnell	D.C.	A.B. 1944, Notre Dame College	
A.B. 1947, The George Washington University		A.M. 1946, Catholic University of America	
Boyer, Delos White	D.C.	Horn, Henry Joseph	Pa.
Bristow, John Wesley	Calif.	B.S. in E.E. 1941, Lehigh University	
Broadstreet, Henry Thomas, Jr.	Fla.	Hughes, Francis Homer, Jr.	W.Va.
B.S. 1945, University of Florida		B.S. 1946, Salem College	
Brooks, Harrison Morton, Jr.	Pa.	Kayhoe, Donald Ellsworth	Md.
B.S. 1940, Wheaton College		A.B. 1948, The George Washington University	
Bruce, Clayton Roy	Pa.	Kent, Stephen Garland, Jr.	Va.
B.S. 1946, University of Pittsburgh		Keshishian, John Mark	Md.
Carnes, Raymond Eugene	Md.	Knox, Robert Ormiston, Jr.	D.C.
A.B. 1947, The George Washington University		A.B. 1947, The George Washington University	
Cohen, George Joel	D.C.	Kolb, Karl Philip	Wis.
Connor, Audrey Marie	D.C.	Leckie, Jack	W.Va.
A.B. 1945, Trinity College		B.S. 1938, Marshall College	
Connor, Joseph Daniel	Md.	Littwin, Charles Stuart	N.J.
Dalton, Charles Edward	Kans.	A.B. 1943, Hobart College	
DiBenedetto, Anthony Domenico	N.Y.	Maffey, Ralph Burton	N.J.
B.S. 1943, Villanova College		B.S. 1943, Rutgers University	
Doran, Stephen Mark	Mich.	Magness, John Lower	Ohio
Erickson, Robert Lyle	Minn.	(With distinction)	
Everding, Charles Hess Jerome	N.Y.	Mandes, James Charles	D.C.
Fabi, Mario Nestor	Pa.	A.B. 1947, The George Washington University	
Files, George Everett	Mass.	Martin, Dean Harrington	Md.
B.S. 1943, Tufts College		McKelway, William Prentiss	D.C.
Funt, Tobias Roger	Mo.	(With distinction)	
A.B. 1938, University of Missouri		A.B. 1943, Washington and Lee University	
Garnett, James Harper Poor	D.C.	Metzger, Joseph Francis	Md.
A.B. 1947, University of Virginia		Morris, Douglas Cockerille	Va.
George, Harry Clair	Ohio	Mott, Richard Henry, Jr.	D.C.
B.S. 1944, Mount Union College		A.B. 1947, The George Washington University	
Gibson, James Wallace	Va.		
B.S. 1941, Hampden-Sydney College			
Gillette, Warren	Calif.		
B.S. 1942, California Institute of Technology			



Naiden, Eulaine (With distinction) B.S. 1942, University of Idaho	Va.	Switzer, Walter Edwin Ed.B. 1940, Illinois State Normal School	Ill.
Nelson, Donald Sell	D.C.	M.S. 1941, University of Illinois	Md.
Oftedal, Sverre John	D.C.	Thibadeau, Andrew Frank	
A.B. 1942, Occidental College	Va.	A.B. 1948, The George Washington University	D.C.
Parish, Matthew Denwood	R.I.	Tribble, William MacLohon	
A.B. 1939, University of Virginia	Colo.	A.B. 1943, Princeton University	Md.
Pauli, Alton Morton		Upton, Emily Frances	D.C.
Pear, Bertram Lincoln		B.S. 1942, University of Maryland	
A.B. 1947, The George Washington University	Honduras	Varvaressos, Yvonne	
Reyes M., Raul Gregorio	N.Y.	Honour Mod. Nat. Science 1946, Oxford University	Md.
B.S. 1946, Georgetown University		Waldrop, Francis Neil	
Rhame, Harold Ellis, Jr. (With distinction)		(With distinction)	
A.B. 1946, Princeton University	Idaho	A.B. 1946, University of Minnesota	Md.
Robertson, Jack Rodney	Wash.	Walter, Katharine Miriam	
Rock, Herman Henry	D.C.	B.S. 1944, The George Washington University	Md.
B.S. 1942, Washington State College	Md.	Weaver, Frank Lloyd, Jr.	
Rubenstein, Norman Hartley		A.B. 1947, The George Washington University	Hawaii
Savase, Charles Joseph, Jr.	Mont.	Willett, Edwin Dexter	N.Y.
A.B. 1941, University of North Carolina	N.Y.	Winter, Frank Ephraim	
Schmidt, Donald Gerry		B.S. 1943, University of Pittsburgh	D.C.
B.S. 1942, University of Washington		Wood, Edwin Charles	
Seborer, Miriam Z. (With distinction)	N.Y.	(With distinction)	N.Y.
A.B. 1939, Hunter College		Yanowitz, Arthur	
A.M. 1940, Columbia University			
Stein, Harold Lawson	N.Y.		
A.B. 1947, The George Washington University			

## THE LAW SCHOOL

## BACHELOR OF LAWS

NOVEMBER 11, 1949

Aiken, William David	Wash.	Dibner, Richard Eugene	N.Y.
Anton, Alfred John	Va.	B.M.E. 1943, College of the City of New York	Md.
A.B. 1948, University of Missouri	Va.	Doane, John Emil	
Apgar, Harry Emanuel, Jr.	Miss.	B.E.E. 1946, The George Washington University	Nebr.
A.B. 1938, Lafayette College	D.C.	Donelson, Kenneth William	Va.
Archer, Crit Alexander	Ill.	Downs, Harold Alfred	D.C.
Avancena, Manuel Claude	N.Y.	Earle, John Howard	
Bathory, Joseph Patrick	D.C.	B.S. 1943, Pennsylvania State College	Calif.
Baumgarten, Stephen Harvey	Ohio	Egley, Paul Wesley	
Beall, John Ninian, Jr.	Va.	A.B. 1946, University of California at Los Angeles	Ind.
Behun, Joseph Andrew	D.C.	Fair, Robert James	
Bennet, Joseph Campbell, Jr.		A.B. 1947, The George Washington University	Nebr.
Blodgett, Norman Stack	Pa.	Falloon, James Hugh, Jr.	
B.S. 1941, Worcester Polytechnic Institute	Nev.	A.B. 1948, The George Washington University	N.J.
Bortner, Jeffrey Clair	Va.	Fanget, Louis Alfred	
Bradley, William Orlando	N.Y.	A.B. 1939, Rutgers University	D.C.
Bumer, Charles Theodore, Jr.		Feldman, Melvin Martin	Md.
A.B. 1947, Cornell University	Va.	Filippone, Frank Joseph	Tex.
Burns, Walter William, Jr.	Kans.	Flanders, Robert Lee	
B.E.E. 1942, Cornell University	Pa.	A.B. 1947, The George Washington University	Pa.
Carter, Harold Martin		Fleming, Lester Leroy	N.Y.
B.S. 1942, Roanoke College	Ohio	Forman, Edward	
Cope, Harland Burleigh	Mass.	A.B. 1942, College of the City of New York	Ohio
A.B. 1946, University of Kansas		Fox, Dorothy Schwartz	
Davis, Sadye Jane		A.B. 1947, The George Washington University	
A.B. 1947, The George Washington University			
DeBlasis, Samuel J.			
DeRosa, Edward Francis			
A.B. 1947, The George Washington University			



Gabletsa, Mary Jane	N.H.	Morrison, William Llewelyn	N.J.
A.B. 1947, Wellesley College		B.S. 1939, United States Coast Guard	
Gemza, Theodore Anthony	Conn.	Academy	
Gingell, Robert Arthur	Md.	Nevin, John Irving, Jr.	N.Y.
A.B. 1948, The George Washington		Nichols, Louis N.	D.C.
University		O'Flaherty, Daniel Fairfax	Va.
Gordon, Herbert Stephan	Ind.	Palmer, Lowell Richard	Va.
A.B. 1947, Indiana University		Parker, O. B.	Md.
Gottshall, William Holt	D.C.	Pickering, Leonard Leroy	Okla.
A.B. 1948, Allegheny College		Ratner, Max	D.C.
Grier, Harold Thomas	D.C.	Reynolds, Gary Stewart	N.Y.
Harper, Richard Howard	W.Va.	Riley, Jeremiah Thomas	Mont.
Hart, Seward Lyman	S.D.	Roberts, John Summerfield, Jr.	Va.
A.B. 1938, Yankton College		B.S. 1941, University of Virginia	
Haskell, Boris	Mass.	Romero, Theodore Robert	Md.
A.B. 1943, Harvard University		Rosenberg, Seymour Morton	N.Y.
Herrick, Harold Colton III	Mo.	(With distinction)	
B.S. in E.E. 1937, B.S. in Eng. Adm.		B.E.E. 1940, College of the City of	
1938, Washington University		New York	
Houseal, Robert Wright, Jr.	S.C.	Sadur, Marvin Phillip	D.C.
B.S. 1943, The Citadel		A.B. 1947, The George Washington	
Hoyt, John Gregory	D.C.	University	
B.S. 1943, United States Military		Sander, Dora	Md.
Academy		A.B. 1942, Radcliffe College	
Jackson, Philip Grant	Iowa	Scariot, Angelo John	Va.
Jacobson, Odd Thomas	N.D.	A.B. 1948, The George Washington	
A.B. 1948, The George Washington		University	
University		Sheridan, Philip Henry	D.C.
Jernberg, Dale Leonard	Md.	B.S. in E.E. 1944, Worcester Poly-	
Jones, Jack Clayton	Okla.	technic Institute	
B.S. in Ch.E. 1939, Oklahoma Agri-		Smith, Thomas Warner	D.C.
cultural and Mechanical College		A.B. 1948, The George Washington	
Kellison, John Ray	Va.	University	
B.S. 1941, University of Richmond		Steenerson, Palmer Seymour	D.C.
Kelly, Edward Joseph	Pa.	Steinmeyer, Robert Jay	D.C.
B.S. in Ch.E. 1939, Drexel Institute		B.S. in E.E. 1943, University of	
of Technology		Nebraska	
Kohlloss, Frederick Henry	Md.	Stetson, Rufus Edwin, Jr.	Maine
B.S. in M.E. 1943, University of		A.B. 1947, Bowdoin College	
Maryland		Stewart, David Alfred, Jr.	Miss.
Kopp, Paul Joseph	Va.	Stuart, Jasper Edwin	D.C.
A.B. 1932, Lehigh University		Sussholz, Leonard B.	N.Y.
A.M. 1933, Duke University		A.B. 1948, The George Washington	
Lagomarcino, Paul Donald	Ill.	University	
A.B. 1948, University of Iowa		Tavener, Frank Brennan	Va.
Leary, Robert George	N.Y.	Taylor, Harry Earl, Jr.	Md.
Lindberg, Dale Sheldon	D.C.	A.B. 1948, The George Washington	
A.B. 1943, Bucknell University		University	
Lokke, Bernard Molineaux	N.Y.	Thorniley, Robert Miller	D.C.
MacMillan John Howard	Md.	Threadgill, William James	Miss.
Mahar, Daniel John, Jr.	N.Y.	A.B. 1947, University of Mississippi	
Maher, Francis Patrick	Tex.	Townsend, Robert Arnold	Va.
Maltman, William Leneave	Oreg.	A.B. 1943, Harvard University	
B.S. 1943, University of Oregon		Umstead, Lyman John	Pa.
Markowitz, Irving	N.J.	A.B. 1948, The George Washington	
Mayes, Basil Lamar	Calif.	University	
McDonough, Russell Charles	Mont.	Vaccaro, Camillo Jimmie, Jr.	D.C.
McQueen, Robert Keith	Iowa	Wagman, Theodore David	Mass.
A.B. 1944, The George Washington		A.B. 1939, A.M. 1940, Boston	
University		University	
Melvin, Flavell Bryan, Jr.	Va.	Walker, Dale Bryan, Jr.	N.M.
Mendelsohn, Sydney Henry	Pa.	Watkins, William Henry	D.C.
Meyers, Leonard Bernard	D.C.	B.S. in E.E. 1940, University of	
Mileur, Alfred Donald	Okla.	Maryland	
Miller, Herbert John, Jr.	D.C.	Wayland, Clarence Raymond	Va.
A.B. 1948, The George Washington		Whitwell, Sanford McCallum	Pa.
University		B.S. in M.E. 1944, Cornell University	
Miller, Robert Preston	N.Y.	Williams, John Charles	N.D.
B.S. in M.E. 1943, Cornell University		Williams, Leonard John II	Md.
Moore, Charles Clifton, Jr.	D.C.	Young, Maynard Fling	W.Va.
Moore, Waldo Hawthorne	Va.	B.S. 1937, United States Coast	
Morgan, Don Earle	Ky.	Guard Academy	
		Zaskalicky, Julius John	Conn.
		B.E. 1942, Yale University	



## FEBRUARY 22, 1950

Alawine, Alton Jackson	Miss.	Gifford, Yale Wesley	Kans.
Arfman, Herbert Edward	Ohio	A.B. 1947, The George Washington University	
Aronson, Sylvan Bernard	D.C.	Goren, Howard J.	Md.
Atkinson, Charles Fred	Ohio	Graybeal, John Olin	Wash.
A.B. 1948, The George Washington University		B.S. 1943, College of Puget Sound	
Baldridge, Reid	D.C.	Green, Samuel	D.C.
A.B. 1948, The George Washington University		A.B. 1948, The George Washington University	
Baskin, William Maxwell	Va.	Gregg, James Calvin	Pa.
Beebe, William Bovell	D.C.	Grove, Jesse Barrett, Jr.	Va.
A.B. in Govt. 1946, The George Washington University		B.S. 1939, Virginia Polytechnic Institute	
Booton, Robert Edward	Iowa	Grubb, Stephen F.	Nebr.
Bramow, Alvin	D.C.	Hamby, John Gordon	Ky.
Bristol, Ethel Cleo	Colo.	B.S. in M.E. 1947, University of Kentucky	
Brown, Herman Cabbage	Del.	Healey, Alan John	D.C.
A.B. 1948, University of North Carolina		A.B. 1948, The George Washington University	
Camby, John Joseph	Pa.	Helzer, Charles William	Fla.
B.S. 1941, Carnegie Institute of Technology		B.S. in E.E. 1945, Georgia Institute of Technology	
Cameron, William Kimmel	Ohio	Hillman, Jack Allan	D.C.
A.B. 1948, The George Washington University		Holbrook, Ollie James	Ky.
Christopherson, Olaf Warren	Minn.	Isom, Clifford Clinton	Ill.
A.B. 1946, The George Washington University		B.S. 1939, Kansas State College	
Church, Abiah Adelbert	Fla.	Jackson, Thomas Lester	Md.
A.B. 1948, The George Washington University		Johnson, Norton Steele	Md.
Coleman, Carl Shaughnessy	Tenn.	Jones, Cullen Bryant, Jr.	Ind.
Cook, Rae Timmins	Pa.	A.B. 1948, The George Washington University	
B.S.C. 1940, Temple University		Jordan, George Sanford	D.C.
Cooke, David Ohlmer	N.Y.	Julien, Carl Alden	Oreg.
B.S. 1941, M.S. 1942, New York State College for Teachers, Buffalo		B.S. 1945, University of Washington	
Cregger, Hugh Cassell, Jr.	W.Va.	M.S. 1947, University of Notre Dame	Md.
Crewe, William Penn	Md.	Kahn, Fritz Reiner	
Daniel, William Jeffress	N.C.	A.B. 1948, The George Washington University	D.C.
B.Ch.E. 1947, North Carolina State College		Kayson, David	N.J.
DePaul, Joseph Alfred	Md.	Kerr, Thomas Moore, Jr.	Mass.
Donnelly, William James, Jr.	Md.	A.B. 1940, Lafayette College	
Dougherty, Frank Robert	Md.	Kitts, Willard Frederick	N.H.
A.B. 1946, The George Washington University		A.B. 1942, Amherst College	
Dowell, Earl Simeon	Ill.	Kokulis, Paul Nicholas	
B.S. 1947, University of Illinois		B.S. 1944, Worcester Polytechnic Institute	
Dwyer, John Joseph	D.C.	Korn, Seymour	N.Y.
A.B. 1948, The George Washington University		Krist, Fred George	N.Y.
Ferrill, Grace Cecelia	R.I.	Kyttle, Stuart Frederick	Md.
A.B. 1948, The George Washington University		A.B. 1948, The George Washington University	
Frank, Robert Berliner	D.C.	Lang, Edward Alexander	Fla.
A.B. 1940, University of North Carolina		B.S. 1943, University of Florida	
Fratt, Nicholas Diller III	D.C.	Lapham, George Sealy, Jr.	Ga.
Fredericks, Ilet Henry	Okla.	Lerner, Theodore Nathan	D.C.
Freeman, Robert M.	N.Y.	Liken, Robert Lee	Okla.
B.E.E. 1944, The College of the City of New York		Lindamood, Joseph Ganam, Jr.	Md.
Friedman, Sol	Md.	A.B. 1943, The University of Maryland	Va.
Furst, Howard Irving	Va.	Lucas, Charles William	Conn.
A.B. 1942, University of California at Los Angeles		Lynch, William Charles	D.C.
Futoran, Josef	Va.	Mann, Donegan	
B.S. 1935, M.S. 1936, The College of the City of New York		A.B. 1947, The George Washington University	Pa.
		Martini, Anthony Francis	
		A.B. 1948, The George Washington University	
		McGinnis, Robert Allen	W.Va.
		McIntyre, Fred Louis	Va.
		A.B. 1948, The George Washington University	



McKeel, Charles Baynor III	N.C.	Steiner, Paul Llewyn	D.C.
Millfelt, William Benjamin	Mo.	Stewart, Francis John	Pa.
Mullin, Eugene Francis, Jr.	D.C.	A.B. 1948, West Virginia University	
A.B. 1945, Brown University		Stiles, Meredith Newcomb, Jr.	N.J.
Musselman, Ashby Milton, Jr.	D.C.	A.B. 1946, Amherst College	
B.S. 1947, University of Maryland		Sukalo, Charles	N.J.
Newmyer, Armand	D.C.	B.S. in Ch.E. 1944, Newark College	
Nolte, Carl Robert, Jr.	D.C.	of Engineering	
A.B. 1948, College of William and		Sullivan, Arthur Victor, Jr.	D.C.
Mary		Tait, Reid Clifford	Md.
O'Brian, Edward Day	Iowa	Taylor, Edward Rathbun	D.C.
B.S. 1947, Iowa State College		A.B. 1947, Lafayette College	
Oda, Robert Yasuo	Hawaii	Thurmond, Cornelius Brooks, Jr.	Ga.
Osann, Robert	Va.	Travaglini, Vincent D.	Va.
B.Ch.E. 1943, Rensselaer Polytechnic		Turkal, Donal Lloyd	Md.
Institute		Vinciguerra, John Vincent	Ohio
Parrish, John Poindexter	Va.	A.B. 1939, University of Akron	
Paulson, Norman Clarence	S.D.	Vitale, Michael Joseph	N.J.
Pieffer, Frederick Thompson	D.C.	Weaver, Gilbert Earl, Jr.	N.C.
A.B. 1947, University of North		A.B. 1948, Lenoir-Rhyne College	
Carolina		Weed, Norman Broadwell	D.C.
Pollack, Leonard Herman	Pa.	A.B. 1938, Stanford University	
Poston, Raymond Lee, Jr.	Va.	Whitaker, Edward Stephen	Tenn.
Reagan, James Edwin	D.C.	A.B. 1942, King College	
Rhine, Mary Elizabeth	Pa.	White, Robert Lynn	W.Va.
Richards, William Robert	Md.	B.S. 1947, Marietta College	
Ridpath, Robert Vance	Ind.	Wicker, George Stanley	Ga.
Rommel, Wilfred Herzer	D.C.	A.B. 1939, Emory University	
B.S. 1937, North Dakota State College		Widman, Charles Louis	D.C.
Rosenthal, Alan Henry	D.C.	Wing, Robert Claude	Maine
Sakai, Hiroshi	Hawaii	B.S. 1935, United States Naval	
Schneider, Walter Henry	N.J.	Academy	
B.S. 1943, Virginia Polytechnic		M.B.A. 1939, Harvard University	
Institute		Withers, John Lewis	N.C.
Shapiro, David	N.Y.	B.S. 1940, Davidson College	
Sharp, Daniel DeWitt	Mass.	A.M. 1941, University of North	
B.S. 1939, Northeastern University		Carolina	
Sheff, Irving Hyman	Mass.	Wolk, Reuben	Calif.
A.B. 1948, The George Washington		B.S. 1938, University of Maryland	
University		Yokley, William Ross, Jr.	Pa.
Smith, Dudley Burcham	Oreg.		
B.S. 1945, California Institute of			
Technology			

## MAY 31, 1950

Atkinson, Ethel Kathleen	Ohio	Blake, George Francis	Md.
B.S. 1928, Carnegie Institute of		Blake, Martin	D.C.
Technology		B.S. 1947, Northeastern University	
A.M. 1940, Western Reserve University	Va.	Blatchford, Walter Larned	Tex.
Ayers, Theodore Aley		B.S. 1933, United States Naval	
A.B. 1941, University of Virginia		Academy	
Bain, Cody	Okla.	Bock, Eugene William	N.Y.
Barish, Benjamin J.	Mich.	B.S. 1948, Texas Christian University	
B.S. in E.E. 1946, Illinois Institute		Brantley, James Cranford	D.C.
of Technology		B.B.A. 1947, University of Georgia	
Barnes, Duard Roof	Ariz.	Brewster, Mary Sanford	Va.
A.B. 1949, The George Washington		Brill, Edward Pope, Jr.	Md.
University		Bundock, John Paul David, Jr.	D.C.
Bauknight, William Cooper, Jr.	Va.	B.S. in E.E. 1948, Tufts College	
B.S. 1942, University of Virginia		Bush, Joseph Francis	D.C.
Becker, Martin Stanley	D.C.	B.S. 1947, Mount St. Mary's College	
Beckwith, Thomas Larson, Jr.	N.J.	Button, Dale Leon	Kans.
Bell, Edward Leroy	Ohio	Caldwell, Randolph Foster, Jr.	Tenn.
B.S. 1946, Illinois Institute of		Cantwell, William James	N.Y.
Technology		A.B. 1948, The George Washington	
Bell, Jay Richard	Utah	University	
Benson, Jacque Maruie	Utah	Carter, Sidney	N.Y.
B.S. 1947, Utah State University		B.C.E. 1942, College of the City of	
Biram, James Raymond	Conn.	New York	
B.E. 1948, Yale University			



Caruso, Lawrence Robert	N.J.	Harmon, Robert Brooks	Md.
A.B. 1949, The George Washington University		B.S. 1941, University of Maryland	
Cherwek, Stanley	Mass.	Hattis, Russell Elmer	Ill.
A.B. 1949, The George Washington University		B.S. in E.E. 1947, University of Illinois	
Cheslow, Ernest	N.Y.	Hendershott, Susan Jane	Md.
B.C.E. 1939, College of the City of New York		Hiers, Jasper Theodore III	N.C.
Chudzik, John Stephen	N.Y.	Hill, William Bethel, Jr.	Va.
A.B. 1948, The George Washington University		B.S.C. 1941, University of Virginia	
Cochran, Robert Reid	N.J.	Holford, Bond Larry	Md.
B.S. in C.E. 1947, Tufts College		Hollingsworth, Gerald Eugene	Md.
Cohen, Saul Benjamin	D.C.	Houston, James Knox	D.C.
A.B. 1949, The George Washington University		Hutchinson, Eileen Marie	Ohio
Compton, Ross Harrington	Va.	Janson, Lars Edward	Va.
B.S. 1947, Massachusetts Institute of Technology		A.B. 1948, The George Washington University	
Crammond, James Darwin	D.C.	Johnson, Leighton Eugene	Minn.
Crane, Esther Sibyl	N.M.	A.B. 1948, The George Washington University	
(With distinction)		Johnson, Richard Carl	Md.
A.B. 1949, The George Washington University		Jones, Darrell Lloyd	Tex.
Curry, Stowers Leigh, Jr.	Va.	Kaiser, Stanley Mortimer	D.C.
A.B. 1948, The George Washington University		Kalb, Vernon Fredric	Ky.
Day, Ernest Herbert	Ohio	B.S. 1947, University of Kentucky	
A.B. 1941, Oberlin College		Kappler, Charles Theodore	D.C.
Dickson, James Meek	S.C.	A.B. 1942, Yale University	
Dixon, William Joseph	Md.	Kelley, Frank William	Mich.
Dowell, Arthur Edward III	D.C.	Kemer, Frank Conrad	Md.
B.S. in E.E. 1943, Princeton University		A.B. 1949, The George Washington University	
Downing, Leslie Burgess	Va.	Kirshbaum, Amiel	D.C.
B.S. 1920, United States Military Academy		B.S. 1937, University of Maryland	
Dumaine, Gabriel Romain	Va.	Klavan, Stanley	D.C.
A.B. 1948, The George Washington University		Klostermann, Wolfgang Ekart	Ill.
Elliott, William Homer, Jr.	N.J.	Kolodny, Joseph George	D.C.
A.B. 1940, Wesleyan University		A.B. 1935, Harvard University	
Engelthaler, Fred Edward	Ill.	Kornblatt, Julius	N.Y.
B.S. 1938, Illinois Institute of Technology		Koutoulakos, Louis	Va.
Favarella, Fiodie Paul	Pa.	A.B. 1949, The George Washington University	
Foley, James Kieran	N.Y.	Kozlowski, Joseph John	Ill.
B.S. 1945, United States Merchant Marine Academy		Lainof, Robert Ivan	Va.
French, William Thomas	Fla.	B.S. 1939, North Carolina State College	
B.C.E. 1943, University of Florida		Lavine, Irvin Arthur	Md.
Fried, Alfred Sigmund	Md.	B.A.E. 1947, Catholic University of America	
Galane, Morton Robert	N.Y.	LeVine, Carl Ralph	Mich.
B.E.E. 1946, College of the City of New York		B.S.E. 1936, M.S.E. 1938, University of Michigan	
Ginsberg, Albert	Md.	Levy, Donald	Md.
Goeway, Bruce Anderson	Mass.	B.S. 1947, University of Maryland	
A.B. 1942, Colgate University		Loomis, Jerome Lathrop	Wis.
Goldstein, Benjamin	N.Y.	Ed.B. 1935, Wisconsin State Teachers College, Whitewater	
B.S.S. 1931, M.B.A. 1932, College of the City of New York		A.M. 1942, Northwestern University	
Gourley, Roy George	Pa.	Lopez, Cornelio Orial	Philippines
B.S. 1948, University of Alabama		A.B. 1927, University of Iowa	
Gray, Daniel William	Mass.	Mack, John Halford	Md.
Hall, Joseph Earl	W.Va.	B.S. 1937, University of New Hampshire	
A.B. 1949, Marshall College		Manning, Charles Madison	Ky.
Hallberg, Ernest Van, Jr.	Fla.	A.B. 1947, Union College	
A.B. 1942, University of Florida		Marks, Solomon	Md.
Hancock, Quinlan Harris	Va.	B.S. 1937, College of the City of New York	
Handy, John Bruce, Jr.	D.C.	Martin, Marshall Alden, Jr.	Va.
A.B. 1943, Washington and Lee University		Martin, Watt Nicholas	Wis.
		Missey, Edward Gabriel	
		A.B. 1942, A.M. 1945, University of Wisconsin	



Moore, Jack Martin A.B. 1949, The George Washington University	Md.	Rutledge, John Saffitz, Abraham Alan A.B. 1936, Cornell University	Va. N.Y.
Muller, Raymond Carl B.S. 1949, University of Maryland	Md.	Schappert, Joseph Matthew, Jr. A.B. 1948, Queens College	N.Y.
Mullinnix, Allen Prather B.S. 1919, United States Naval Academy	D.C.	Scholtz, Edward Karl Schonberger, Eugene Schultz, Herman David	Nebr. Va. N.Y.
M.S. 1926, Yale University		Sheeran, James Joseph Sheridan, Philip Regis A.B. 1948, The George Washington University	N.J. Pa.
Murish, Everett Clark A.B. 1947, Harvard University	Ohio	Shoemaker, William Robert Shoup, Wilson Elliott A.B. 1937, Indiana University	Ala. Va. D.C.
Norvell, Robert Joseph B.S. 1947, University of Wisconsin	Va.	Silverman, Aaron A.B. 1948, The George Washington University	D.C.
Novakovich, Nada O'Dea, Thomas Emmett Odza, Hugh Malcolm A.B. 1947, Pennsylvania State College	Nev. D.C. Pa.	Skinner, Henry Ross A.B. 1947, University of Wyoming	Wyo.
Otterman, Harvey Boyd, Jr. A.B. 1949, The George Washington University	Vt.	Smith, Chester Horace Stehl, Edward III A.B. in Govt. 1949, The George Washington University	Nev. Va.
Patton, Arthur Gordon A.B. 1946, Yale University	Va.	Steinbauer, Walter Henry, Jr. B.S. 1947, Emory and Henry College	D.C.
Pearson, Beverly Stocking A.B. 1940, Vassar College	Md.	Steinberger, Hugh Marion B.S. 1941, University of Virginia	D.C.
Peisner, Arthur A. Pendergrass, John Mullard A.B. 1945, Kalamazoo College M.P.A. 1946, Wayne University	Md. Va.	Stephens, William Theodore Sullivan, Thomas Vincent A.B. 1942, New York University	Md. N.Y.
Phillips, Gordon Allison Ph.B. 1947, University of Chicago	Tex.	Tafoya, Ben Tashjian, Lee Charles A.B. 1949, The George Washington University	Md. Md.
Philpitt, Frederick Charles B.S. 1947, University of Maryland	D.C.	Ussery, Harry McRae Vance, John Thomas A.B. 1947, University of Montana	Va. Md.
Rath, Robert Karl Rich, Francis Earl B.S. 1941, United States Naval Academy	Ohio Miss.	Varoutsos, Paul George Waldron, Richard Vernell Ed.B. 1938, Southern Illinois University	Va. Ill.
Ries, Carl Gilbert B.S. 1947, University of Wyoming	Wyo.	Woodling, Francis Albert A.B. 1946, The George Washington University	Md.
Robbins, Glenn Kingsland B.S. 1947, Washington University	Miss.	Yarnoff, Leroy Mills Young, Jack Martin B.S. 1943, Case Institute of Technology	D.C. Ohio
Rodgers, James Edwin Romero, Mario Savedra B.S. 1939, National University of Mexico	Pa. Tex.		
Rood, George Henry A.B. 1939, University of Florida	Fla.		
Roubideaux, Ramon Arthur Rowe, Willis Case A.B. 1949, The George Washington University	S.D. D.C.		

## JURIS DOCTOR

NOVEMBER 11, 1949

Cavanagh, John Edward A.B. 1941, University of Oregon	Oreg.	Seidel, Arthur Harris B.S. 1942, College of the City of New York	N.Y.
Dixon, Rod Paul A.B. 1947, University of Utah	Utah	A.M. 1943, University of Michigan	D.C.
Earle, William Kehr B.S. 1940, United States Coast Guard Academy	Pa.	Stewart, Rodney Ward A.B. 1933, Carleton College A.M. 1934, University of Chicago	
Minnick, John Bradley A.B. 1935, Amherst College	Va.	Ph.D. 1938, Harvard University	Utah
Netterville, Victor Samuel A.B. 1947, Indiana University	Ind.	Woodbury, Wallace Richards A.B. 1947, University of Utah	
Pettigrew, Wilbur B. B.S. 1930, State Teachers College, Maryville, Mo. M.S. 1939, Iowa State University	Va.		



## FEBRUARY 22, 1950

Millman, Max Roland	N.Y.	Siegel, Abraham	Calif.
B.S. 1937, The College of the City of New York		B.S. 1940, The College of the City of New York	

## MAY 31, 1950

Breslauer, Ruth Cooper	D.C.	Reid, James Sharp	D.C.
(With distinction)		A.B. 1937, Cornell University	
B.S. 1945, The George Washington University		Reifin, Martin Gardner	N.Y.
Donnelly, Henry Joseph, Jr.	Va.	(With distinction)	
B.S. 1928, University of Pennsylvania		B.M.E. 1945, College of the City of New York	
Goldsborough, George Joseph, Jr.	Md.	Sweitzer, Henry Becker	Pa.
B.S. 1947, United States Military Academy		B.S. 1941, United States Naval Academy	
Patty, Clarence Ralph, Jr.	Tenn.		
B.S. 1940, University of Tennessee			

## MASTER OF LAWS

## NOVEMBER 11, 1949

Bailey, William Alfred	Tex.	Kait, Harry Carl	N.J.
LL.B. 1948, The George Washington University		B.S. 1928, Temple University	
Boroughs, Lewis Edward	N.C.	LL.B. 1938, Rutgers University	Ala.
LL.B. 1948, The George Washington University		Manning, Glenn Franklin	
Brain, William Herbert	Ill.	LL.B. 1948, University of Alabama	D.C.
B.S. 1944, University of Illinois		Page, Helen Bell	
LL.B. 1948, The George Washington University		LL.B. 1948, The George Washington University	D.C.
Chang, Richard I-Feng	D.C.	Pickens, John Kenneth	
A.B. 1943, St. John's University		A.B. 1939, The George Washington University	
LL.B. 1949, DePaul University		LL.B. 1942, Harvard University	Md.
Embrey, Lemuel Jackson	Va.	Roberts, Richard Mansfield	
A.B. 1937, LL.B. 1949, The George Washington University		LL.B. 1948, The George Washington University	Mo.
Guimond, Joseph Alexandre	Ohio	Russell, William David	
A.B. 1931, LL.B. 1933, Western Reserve University		A.B. 1936, LL.B. 1938, University of Missouri	La.
Hudgins, John Jefferson	D.C.	Sylvester, Malcolm Duncan	
LL.B. 1949, The George Washington University		B.S. 1925, United States Naval Academy	
Hudson, Dugald Walker	S.C.	J.D. 1939, The George Washington University	
B.S. 1940, Presbyterian College			
LL.B. 1949, The George Washington University			

## FEBRUARY 22, 1950

Choulas, James George	N.Y.	Littman, Simon	D.C.
LL.B. 1949, The George Washington University		LL.B. 1931, University of Maryland	
Cotter, Francis Aloysius	Md.	McGrail, Edward Hugh	N.J.
LL.B. 1949, The George Washington University		A.B. 1943, St. Peter's College	
Gardner, Edith Rose	Va.	LL.B. 1948, Georgetown University	Miss.
A.B. 1943, University of California at Los Angeles		McLaurin, Lillian Catherine	
LL.B. 1948, The George Washington University		A.B. 1937, LL.B. 1939, Vanderbilt University	
Hobbes, Alan Buxton	Fla.	B.S. 1941, George Peabody College for Teachers	Va.
A.B. 1939, Washington and Lee University		Munves, William	
LL.B. 1947, The George Washington University		A.B. 1932, College of the City of New York	
Kardy, Leonard Thomas	Md.	J.D. 1936, New York University	D.C.
LL.B. 1949, The George Washington University		Narron, Wiley	
		LL.B. 1943, The George Washington University	



Preston, Edwin Page LL.B. 1948, Washington and Lee University	Tenn.	Whitesel, James Warren B.S. 1943, Wake Forest College J.D. 1948, The George Washington University	D.C.
Reynolds, Chester Forrest LL.B. 1949, The George Washington University	W.Va.		

## MASTER OF COMPARATIVE LAW

NOVEMBER 11, 1949

Beyen, Karel Herman Juris Candidatus 1943, University of Utrecht	Netherlands	Del Russo, Alessandra Luini Doctor Litterarum 1939, State University, Milan	Italy
Juris Doctorandus 1948, University of Amsterdam		Doctor Jurisprudence 1943, State University, Pavia	

FEBRUARY 22, 1950

Bourdon, Edouard Docteur en Droit 1938, Liege University	Belgium	Fisher, John Hanus J.D. 1931, University of Prague	Md.
--	---------	---	-----

MAY 31, 1950

Altman, Gerald B.S. 1943, LL.B. 1949, Boston University	Mass.	Halen, John Thomas A.B. 1949, Brooklyn College LL.B. 1949, St. Johns University	Va.
Bartimo, Frank Antonio A.B. 1941, Clark University LL.B. 1944, The George Washington University	Mass.	Harper, Richard Howard LL.B. 1949, The George Washington University	W.Va.
Blessing, Melvin Junior B.C.E. 1940, Cornell University LL.B. 1949, Georgetown University	Va.	Hart, Seward Lyman A.B. 1938, Yankton College LL.B. 1949, The George Washington University	S.D.
Bronaugh, Alfred Taylor B.S. 1939, J.D. 1949, The George Washington University	D.C.	Hodges, Willard Jefferson, Jr. LL.B. 1937, University of Alabama	Ala.
Buldain, Frank Javier A.B. 1933, LL.B. 1935, Baylor University	Tex.	Houseal, Robert Wright, Jr. B.S. 1943, The Citadel LL.B. 1949, The George Washington University	S.C.
Coggins, John Wesley LL.B. 1940, The George Washington University	N.C.	Kaplan, Harold Irving B.S. 1942, University of Maine LL.B. 1948, Harvard University	Mass.
Dreos, George Calvin B.S. 1945, University of Alabama LL.B. 1948, The George Washington University	D.C.	Kiechel, Walter, Jr. A.B. 1941, University of Nebraska LL.B. 1949, Yale University	Nebr.
Earle, John Howard B.S. 1943, Pennsylvania State College LL.B. 1949, The George Washington University	D.C.	Kuchler, Ralph Rudolph A.B. 1948, LL.B. 1949, The George Washington University	Utah
Ehrlich, Bernard Herbert A.B. 1947, LL.B. 1949, The George Washington University	D.C.	Kunz, Karl Michael Ph.B. 1941, Providence College LL.B. 1947, Georgetown University	R.I.
Galinis, Victor John LL.B. 1941, Georgetown University	Mass.	Leary, Robert George LL.B. 1949, The George Washington University	D.C.
Gilmore, Frank Peter B.S. 1927, M.D. 1929, Loyola University	Ill.	Levin Joseph LL.B. 1949, The George Washington University	Md.
LL.B. 1949, The George Washington University		Long, George Edward LL.B. 1949, The George Washington University	Md.
Gorman, Vincent Andrew LL.B. 1948, St. John's University	N.Y.	Moore, Charles Clifton, Jr. LL.B. 1949, The George Washington University	Va.
Gravatte, Robert Howerton, Jr. A.B. 1943, LL.B. 1947, University of Virginia	D.C.	Nowlin, Joe Franklin LL.B. 1949, University of Arkansas	Ark.



Palmes, Lowell Richard	Va.	Sumney, Ara Long	W.Va.
LL.B. 1949, The George Washington University		LL.B. 1940, University of Richmond	
Pellerzi, Leo Maurice	D.C.	A.B. 1946, West Virginia University	Va.
LL.B. 1949, The George Washington University		Swartz, Christian LeFevre	
Pettigrew, Wilbur B.	Iowa	B.S. 1937, University of Pennsylvania	N.M.
B.S. 1934, Missouri State Teachers College		LL.B. 1946, Temple University	
M.S. 1939, State University of Iowa		Triviz, Edward Ernest	
J.D. 1949, The George Washington University		A.B. 1942, New Mexico College of Agriculture and Mechanic Arts	
Richwine, Francis Kost	Pa.	LL.B. 1949, The George Washington University	Tex.
B.S. 1941, Pennsylvania State College		Turrou, Edward Arnold	
LL.B. 1949, The George Washington University		A.B. 1942, LL.B. 1948, The George Washington University	D.C.
Rousar, Edward Everett	Okla.	Watkins, William Henry	
LL.B. 1949, The George Washington University		B.S. 1940, University of Maryland	Va.
Stanley, Earl R.	Ohio	LL.B. 1940, The George Washington University	
B.S. 1943, Kent State University		Webster, John Mark	
LL.B. 1949, The George Washington University		B.S. 1942, University of Minnesota	Fla.
Steenerson, Palmer Seymore	D.C.	LL.B. 1947, The George Washington University	
LL.B. 1949, The George Washington University		Wyatt, John Walton	
Streinz, Clare Julia	Pa.	B.S. 1938, State Teachers College, Troy, Ala.	
LL.B. 1949, The George Washington University		LL.B. 1947, University of Florida	

## THE SCHOOL OF ENGINEERING

## BACHELOR OF CIVIL ENGINEERING

NOVEMBER 11, 1949

Angelaras, James George	D.C.	Mandragos, Constantine Nicholas	Md.
Buzzell, Donald Alan	Va.	Percy, Morgan F.	N.Y.
Heiser, Will Maynard	Colo.	Riner, William Carter	Ga.
A.B. 1938, Oberlin College			

FEBRUARY 22, 1950

Austin, Roland Michael	D.C.
------------------------	------

MAY 31, 1950

Clark, Lyman Ernest	Md.	Martins, Elsom Solano	Brazil
Collins, Webster Horace	Pa.	McConnell, Richard D.	Va.
Davis, Richard Nathan	Va.	Middleton, Glenn Arthur	D.C.
Dimmette, Claude Chester, Jr.	D.C.	Offenbacher, Hurley Francis	D.C.
Dotson, Daniel Keating	Nev.	Roamer, James Mahan, Jr.	D.C.
Fanton, Herman Theodore, Jr.	D.C.	(With distinction)	
Flynn, Alfred Filer, Jr.	D.C.	Robins, James Edward	Pa.
Gallo, Raphael Edmund	N.Y.	Smale, Ronald Anthony	Fla.
Goforth, George Tuttle	Va.	Smith, Truett Conwell	Fla.
Jennings, Rufus Floyd, Jr.	Md.	Taylor, George Oliver	Md.
Koester, Richard Eugene	D.C.	Tittrington, George Frank, Jr.	D.C.
Martin, James Lewis, Jr.	D.C.	Vogel, Bertram Marvin	

## BACHELOR OF ELECTRICAL ENGINEERING

NOVEMBER 11, 1949

Asano, Paul Sachio	Utah	Klein, William Joseph John	N.Y.
Bird, William Lawrence	D.C.	Libby, Edwin Clark	N.H.
Brown, Kenneth Ray	D.C.	Lowry, Elwood Dawson	N.J.
DeVico, Luigi	N.Y.	Marsteller, Herbert Heiskell	Va.
Hintze, William	D.C.	Snyder, Gilbert Reed	Va.



## FEBRUARY 22, 1950

Dupre, Forrest Francis	R.I.	Stephenson, Earl Donald	D.C.
Marshak, Bennis	N.Y.		

## MAY 31, 1950

Arsem, Collins	Md.	Levy, Irvin Jack	D.C.
Blumberg, Marvin	N.J.	Lourenco, Manuel Joseph	Mass.
Breeskin, Sol Daniel	D.C.	Maskaleris, Christos Louis	Conn.
Brzozowski, Edmund	Mass.	McClain, Edward Fifer, Jr.	Tenn.
Buck, Fred Everett	Va.	McPhail, John Finley, Jr.	Tenn.
Bussler, John McCrossin	D.C.	Murray, James Andrew, Jr.	D.C.
Bussler, Robert Bruce	D.C.	Ohl, Robert Franklin	Va.
Compton, Milton Edwin, Jr.	D.C.	Packer, Ellis Reed	D.C.
Conner, John Paul	Pa.	Robertson, Bedford Shelton, Jr.	D.C.
Cosman, Alvin	D.C.	Rockowitz, Jerome Bernard	N.Y.
Cudd, George Benjamin	S.C.	Saba, Michael	Pa.
Danforth, Robert Compton	Va.	Sadler, Emmett Garner	D.C.
Daniels, Richard Gauntlett	Md.	Schkolnick, Herman	D.C.
Egloff, Edward	D.C.	Seal, Frank Walker	Md.
Hamilton, Edwin Earl	Va.	Simeroth, John William	Okla.
Hamilton, Samuel Graham	Mass.	Stambach, George Leonard	Pa.
Hanrahan, Donald Joseph	N.Y.	Vicory, Howard Morton	Va.
Huffman, Randolph Edgar	Md.	Warden, Burdett Stryker, Jr.	Va.
Johnson, Theodore Robert	D.C.	Warner, Gerald Lee	D.C.
Kee, Richard Moy	D.C.	Watkins, Cleveland Foster	Md.
Kendall, Frank Herbert, Jr.	Md.	Watkins, Phillip Lewis	Md.
Kiernan, Robert James	Ohio	(With distinction)	
Knopp, Arthur Maxwell	D.C.	Weinberger, Elias	N.Y.
Kortman, Cecil M.	Tex.	Whittemore, William Kittredge	D.C.
Landsman, Louis	D.C.	Wise, Robert Arthur	Pa.

## BACHELOR OF MECHANICAL ENGINEERING

## NOVEMBER 11, 1949

Bell, Ivan Francis	Va.	Holliday, Reynold Ross	Pa.
Bennett, Kenneth Chester	Va.	Houck, David Russell	Pa.
Breazeale, James Allen	Mo.	Karczmarczyk, Edward John	Mass.
Crupper, Joseph Lee III	Md.	Morgan, John William	W.Va.
Elf, Martin Arthur	Pa.	Ollendorf, Donald	Va.
Freeman, Lawrence Dudley	Mass.	(With distinction)	
B.E.E. 1949, The George Washington University		Price, Joseph Lindsey, Jr.	Va.
Galeano, Charles Joseph	Md.	Ryder, James Andrew	N.Y.
Grant, Orland Wolcott	N.J.	Sirota, Solomon	N.Y.
Hamilton, Jack Hobert	D.C.	Swanson, Ragnar Gosta	Mass.
		Traylor, James Edward	Va.

## FEBRUARY 22, 1950

Bartik, Richard	N.J.	Grayson, Howard Avery	D.C.
Brown, Robert William	Md.	Herndon, Donald Floyd	Md.
Burns, Bland Calvin	Va.	Lucas, Henry August	N.Y.
Cassell, Irving Seymour	N.Y.	O'Brien, Anthony Aloysius	D.C.
Davidson, Chester Peter	N.Y.	Proctor, Lawrence Barnes, Jr.	D.C.
Davidson, Frank Joseph	N.Y.	Sirota, Milton	N.Y.
Dawson, James Alfred	Va.		

## MAY 31, 1950

Chacos, Nicholas George	D.C.	Shipp, Thomas Wooten	D.C.
Cleary, Vincent Walter	Va.	Showkeir, Julian Mansour	Va.
Crowell, Harry Bennett	D.C.	Startz, Raymond Francis	Kans.
Hunter, Eldred Tait, Jr.	Md.	Thompson, Frank Revell	Va.
Hurley, Karl Corley	Md.	Volin, Rudolph Herbert	Ohio
Jefferson, William Douglas	D.C.	Werner, Monroe Mark	N.Y.
Kulp, Russell Nyce, Sr.	Md.	A.B. 1938, Brooklyn College	
Mayer, Fred Louis	D.C.	Widman, Joseph William	D.C.
Percival, William Alfred	Pa.	Wright, Willard Alden	Pa.
Schraitle, Arthur William	Va.		



## BACHELOR OF SCIENCE IN ENGINEERING

NOVEMBER 11, 1949

Buckley, Robert Baldwin	Wis.	Mainhart, Howard Morsell	Md.
Burton, Lockwood Duquesne	D.C.	Mendelson, Michael	N.J.
Lemley, Charles Raymond	La.	Richards, James Carlin	Va.
Liljegren, Ervin James	Md.		

FEBRUARY 22, 1950

Blake, Harry Thomas	D.C.	Morgan, Robert Elonzo	Md.
Heim, Seymour	N.Y.	Schletter, Martin Sheldon	N.J.
Irico, Joseph	N.Y.		

MAY 31, 1950

Bunker, Joseph Baldridge, Jr.	Md.	LaTorre, Richard Robert	N.Y.
Conrad, Robert William	D.C.	Lee, Stanley Jerome	N.Y.
Custard, Robert Franklin	Va.	Mann, Charles Kenneth	Md.
Flynn, Laurence Brenden	N.Y.	Masiello, Joseph Alvin	Va.
Gaskins, Richard Hancock	D.C.	McPhail, Harvey Franklin, Jr.	D.C.
Grant, Leonard Joel	N.Y.	Mellinger, Harry Albert	Va.
Greer, Thomas Jefferson, Jr.	Tex.	Repak, Peter	Pa.

## THE SCHOOL OF PHARMACY

## BACHELOR OF SCIENCE IN PHARMACY

NOVEMBER 11, 1949

Hollingsworth, Russell Kuhner Jr.	D.C.
-----------------------------------	------

FEBRUARY 22, 1950

Arch, Edward Kenneth	Pa.	Rosen, Sam	D.C.
Rankin, Billy Frank	W.Va.		

MAY 31, 1950

Abramson, Aaron	N.Y.	Lawson, Adrian Lee	Va.
Adelson, Morton Jackson	N.Y.	Levin, Haskell	D.C.
Albright, Frank Glenn	W.Va.	Moskowitz, Milton Sam	D.C.
Bay, Paul Georgeaff	Ill.	Nernberg, Ralph Amos	Fla.
Bressler, Wilson Kress	Ind.	Niefeld, Herbert	D.C.
Burton, William Miles	D.C.	Orloff, Milton	D.C.
Cohen, Albert Abraham	D.C.	Pannill, William Eliason	Ohio
Dichter, Jack C.	N.J.	Pickett, Robert Eugene	N.Y.
Drapkin, Leon Isadore	Md.	Rosenberg, Walter Saul	N.Y.
Felicetti, Dominic	R.I.	Schweiger, Raymond Morris	Tenn.
Futterman, Sidney	Md.	Silva, Harold	Iowa
Geloso, Samuel Theodore	N.Y.	Simon, Philip James	D.C.
Goldberg, Jack	D.C.	Stone, Joseph Jack	Va.
Heller, Milton	Md.	Thomas, Howard Adams	D.C.
Johnson, Clyde George	Md.	Title, Irwin	D.C.
Johnson, Warren Louis	Va.	Wasserman, Selma	W.Va.
Kan, Perry Harlan	Md.	Ways, Douglas Arthur	Nebr.
Katz, Morton Harry	Md.	Wilson, Mary Alice	
Keahey, William	D.C.	B.S. 1939, University of Nebraska	Md.
Koustenis, Harry George	Ohio	Zimmer, David Joseph	
Kuhn, Mark Joseph	D.C.		



## THE SCHOOL OF EDUCATION

## BACHELOR OF ARTS IN EDUCATION

NOVEMBER 11, 1949

Cox, Omer Loraine	Ill.	Saylor, James Burton	Pa.
Fineblum, Carol Mazaroff	D.C.	Shumate, Martha Lee	W.Va.
Henebry, Alfred Garrett	D.C.	Taylor, Ada Elizabeth	D.C.
Hense, James Albert	Pa.	White, Marian Virginia	Va.
Rodas, Adela	Puerto Rico		

FEBRUARY 22, 1950

Schwartz, Herbert

D.C.

MAY 31, 1950

Beren, Irene Frances	Wis.	Morrison, Robert Reid	D.C.
Bryde, Georgia Rea	Md.	O'Meara, William Raymond	D.C.
Cason, Vivian Jamie	Fla.	Palmer, John Gilbert	Md.
Creighton, William James	Mass.	Patlen, Bernard Leonard	D.C.
Dietz, Glenn Allen	Fla.	Poljatic, Helen Louise	Vt.
Dobbis, Barbara	N.Y.	Previte, Charles Richard	N.J.
Evenson, Norma Doris	D.C.	Pyle, Jane	D.C.
Fox, Margaret Helen	D.C.	Read, Mary Sue	Ill.
Grewal, Rajwant Kaur	D.C.	Rice, Carol Lynn	D.C.
A.B. 1942, Nagpur University, India		Rouleau, James Petrie	D.C.
Hager, Florence Betty	Md.	Ryan, James Joseph	N.Y.
Harper, Edith Elizabeth	D.C.	Schlemeier, Nancy Early	D.C.
Havell, Olga Marge	Va.	Sergeant, Audrey Lou	D.C.
Heilmann, Marjory Ann	Md.	Simmons, Thelma Thompson	Calif.
Jones, Walter Warren	Ky.	Sutherland, Dorothy Gaile	Md.
Kelly, Harry Joseph	Pa.	Thompson, Winifred Grace	Md.
Langerman, Elaine Mildred	D.C.	Vickers, Ollin Dalton	Calif.
(With distinction)			

## BACHELOR OF SCIENCE IN HOME ECONOMICS

NOVEMBER 11, 1949

Beck, Mary Elizabeth	Va.	Suntay, Aurora Silvia	Philippines
----------------------	-----	-----------------------	-------------

MAY 31, 1950

Bauer, Mary Graybill	Md.	McGriff, LaDonna Lee	Va.
Buck, Barbara Lou	Va.	Rohrs, Beverly Ann	Md.
Corvin, Alice Elizabeth	D.C.	Sequist, Ruth Ellen	D.C.
George, Joan Marjorie	Va.		

## BACHELOR OF SCIENCE IN PHYSICAL EDUCATION

NOVEMBER 11, 1949

Butkus, Carl John	Pa.	Sheppy, Phyllis	Fla.
Mitchell, Nan	D.C.	(Special honors in Physical Education)	
Peel, Ella Leuvenia	D.C.	Talbott, Philip, Jr.	D.C.

FEBRUARY 22, 1950

Auriti, Anthony Augustine	D.C.	Poston, John William	D.C.
Miltzer, Gustave David	D.C.	Stanislawczyk, Joseph Michael	Pa.
Moffatt, Samuel John	D.C.		



## MAY 31, 1950

Bernot, Joseph John  
 Bovee, Howard Ralph  
 Caruso, Anthony John  
 Cavallo, Frank Nicholas  
 DePaoli, Dora Marie  
 Druckenmiller, Donald James  
 Famulatte, Julius Anthony  
 Fleetwood, George Harlan  
 Gottesman, Alexander Morey  
 Grinnell, John Robert  
 Howell, David Mitchell

Pa.  
 Vt.  
 N.Y.  
 Mass.  
 N.Y.  
 Va.  
 N.Y.  
 Del.  
 Va.  
 Mass.  
 D.C.

Kennedy, Arthur Wallace  
 Merrell, Robert Franklin  
 Mitchell, Mary Lynn  
 Pietras, Chester Joseph  
 Regan, James Andrew  
 Sato, Edward Hifumi  
 Spangler, Leonard William  
 Stein, Julian Ulman  
 Suttle, Herman Judson  
 Tully, Jean Alice

N.J.  
 D.C.  
 D.C.  
 Mass.  
 Mass.  
 Hawaii  
 Va.  
 D.C.  
 W.Va.  
 Va.

BACHELOR OF ARTS AND MASTER OF ARTS IN EDUCATION  
 (Five-year Program)

## MAY 31, 1950

Heine, Edward George Md.  
 (Special honors in Education)

## MASTER OF ARTS IN EDUCATION

## NOVEMBER 11, 1949

Benson, Margaret Brown Md.  
 A.B. 1940, East Carolina Teachers College  
 Blakemore, Lemuel Anthony Minn.  
 B.S. 1940, University of Minnesota  
 Bon, Franklin Albert D.C.  
 A.B. 1948, College of William and Mary  
 Bride, Crescent Joseph Md.  
 B.S. 1930, Arnold College  
 A.B. 1938, University of Maryland  
 Brown, Imogene Russell Va.  
 A.B. 1931, East Central State College, Ada, Okla.  
 Brown, James Grady Md.  
 A.B. 1948, The George Washington University  
 Buckley, Ralph Edward Va.  
 B.S. 1938, Virginia Polytechnic Institute  
 Cline, June Antonia Va.  
 A.B. 1946, Roanoke College  
 Coyle, Kathryn Rosamond R.I.  
 A.B. 1935, Emmanuel College  
 B.Ed. 1936, Rhode Island College of Education  
 Crooker, Barbara Travis Va.  
 A.B. 1944, Carleton College  
 Davis, Elsie Wyllie D.C.  
 B.S. 1941, New Haven State Teachers College  
 Dean, Louise Wadhams Blakeslee Conn.  
 A.B. 1919, Wellesley College  
 Decker, Charlotte Burch D.C.  
 B.S. 1939, Wilson Teachers College  
 Erp, Marjorie Jean Wash.  
 A.B. 1942, Washington State College  
 Fenn, Geraldine Georgiana Mont.  
 B.S. 1933, South Dakota State College  
 Gardner, Sophia Schneider Va.  
 B.S. 1936, New York University

Garnett, Carroll Marion Va.  
 B.S. 1948, The George Washington University  
 Gordon, Woodrow Wilson Va.  
 A.B. 1935, Randolph-Macon College  
 Handler, Alvin Irving N.Y.  
 B.S. 1939, Syracuse University  
 Hebda, Edward Albert D.C.  
 A.B. 1939, Pennsylvania State College  
 Indorf, Frederick Anderson Mo.  
 B.S. 1938, University of Missouri  
 Ingram, Frances Baker D.C.  
 A.B. 1947, The George Washington University  
 Jackson, Robert Eugene Ind.  
 B.S. 1947, The George Washington University  
 Johnson, Elsie Nora D.C.  
 B.S. 1936, Wilson Teachers College  
 Kenney, Katherine Jane Md.  
 B.S. 1940, University of Maryland  
 Lawrence, Roger Lee Ohio  
 B.S. 1943, Ohio State University  
 Massie, Katie Garland Va.  
 B.S. 1935, Longwood College  
 Michelson, Samuel N.Y.  
 A.B. 1949, The George Washington University  
 Olshaker, Gertrude Edith D.C.  
 B.S. 1944, Wilson Teachers College  
 Phippings, Edna Mae Va.  
 B.S. 1941, Mary Washington College  
 Remaley, Charles Bertella Md.  
 B.S. 1935, Allegheny College  
 Reymore, Gerald George Minn.  
 A.B. 1943, Saint Olaf College  
 Saverance, Carolyn McNair S.C.  
 A.B. 1940, Winthrop College  
 Slattery, Francis Joseph D.C.  
 B.S. 1935, Wilson Teachers College  
 Smith, Orval James D.C.  
 A.B. 1947, University of Wyoming



Tate, Marian Keefer A.B. 1925, The George Washington University B.D. 1938, Chicago Theological Seminary	Md.	Turner, Edward Clarence B.S. 1943, University of Maryland	Md.
Trainham, Eliza Hunter B.S. 1928, College of William and Mary	Va.	Vleck, Myron Edward B.S. 1943, The George Washington University	N.J.
Turberville, Alice Atwill B.S. 1942, Mary Washington College	Va.	West, Sally Frances B.S. 1939, Wilson Teachers College	D.C.
		Ziobro, Stanley Robert B.S. 1942, The George Washington University	N.J.

## FEBRUARY 22, 1950

Benson, Virginia Beach A.B. 1936, College of William and Mary	Va.	Ross, Cordelia Hildegard B.S. 1933, State Teachers College, Farmville, Va.	Va.
Crowser, Charles James William A.B. 1947, Shepherd College	W.Va.	Shipley, John Bruce A.B. 1940, Shepherd College	W.Va.
Curry, Mary Brierton B.S. 1942, New York State College for Teachers	N.Y.	Thurman, Dale Leonard B.S. 1939, University of Nebraska	Va.
Doutrich, Jewel Elizabeth B.S. 1940, Oklahoma College for Women	D.C.	Walker, Isabelle Pennington A.B. 1934, Centre College	Ky.
Gore, John William A.B. 1947, Shepherd College	W.Va.	Wathen, Rosa Lee A.B. 1934, Western Maryland College	Md.
Ihrig, Katherine Anna A.B. 1930, University of Wisconsin	Ohio	Widmyer, Walter Ralph A.B. 1939, Shepherd College	W.Va.
Kupka, Anthony B.S. 1930, Ithaca College	Md.	Willard, Marjorie Avery B.S. 1944, Madison College	Va.
Pagan, Katharine B.S. 1938, Wilson Teachers College	D.C.	Yurwitz, Julius Peter B.S. 1939, The George Washington University	Md.

## MAY 31, 1950

Agens, Jeanette Field A.B. 1942, University of Oregon	Oreg.	Jackson, Frances Beatrice B.S. 1931, M.S. 1936, University of Tennessee	Tenn.
Alley, Edith B.S. 1938, Western Carolina Teachers College	N.C.	Jeffries, Corinne Flegler A.B. 1944, Baldwin-Wallace College	Ohio
Bates, Ward Pendleton A.B. 1939, Trinity College	Md.	Jones, Helen Stuart B.S. 1936, Mary Washington College	Va.
Bauer, John Joseph Ph.B. 1925, Brown University	Mass.	Kier, William Ralph B.S. 1940, State Teachers College, Indiana, Pa.	Va.
Benson, Arthur Leonard A.B. 1933, Lehigh University	N.J.	Leiper, Mary Rita B.S. 1937, Wilson Teachers College	Md.
Caples, Willis Harry B.S. 1946, University of Oregon	Nev.	Moore, Clifton Robert B.P.E. 1923, Springfield College	D.C.
Coleman, Mary Ellen B.S. 1937, Madison Teachers College	D.C.	Ott, Katherine Anna B.S. 1934, Western Reserve University	Va.
Gustafson, Melbourne Gustaf A.B. 1938, Augustana College	Va.	Owings, Ruth B.Mus. 1928, Furman University	S.C.
Harris, John Samuel, Jr. B.S. 1943, Wilson Teachers College	D.C.	Pickett, Nita Alleyne A.B. 1932, The George Washington University	Ill.
Harris, Virginia Berenice B.S. 1940, University of Virginia	Va.	Shade, James Russell, Jr. B.S. 1940, Millersville State Teachers College	Va.
Howard, Henrietta Rothwell B.E. 1937, Milwaukee State Teachers College	Wis.	Watson, Virginia Hensell A.B. 1930, West Virginia University	Va.
Hoyt, Kenneth Boyd B.S. 1948, University of Maryland	Md.	Wright, William Warren B.S. 1949, Capital University	N.D.
Iacangelo, Ralph Pasquale B.S. 1948, Wilson Teachers College	D.C.		

## DOCTOR OF EDUCATION

## NOVEMBER 11, 1949

Holliday, Frances B.S. 1920, Northwest Missouri State Teachers College A.M. 1928, University of Missouri Dissertation: "The Teaching of Methods in the Preservice Education of Elementary Teachers"	Ind.	Rumbough, William Samuel B.S. 1927, A.M. 1946, The George Washington University Dissertation: "Management of the High School Principal's Office"	Va.
--	------	--	-----



## FEBRUARY 22, 1950

Johnson, Howard Odin  
Ed.B. 1934, State Teachers College,  
Eau Claire, Wis.  
A.M. in Ed. 1948, The George  
Washington University  
Dissertation: "The Development of  
More Effective Methods of Train-  
ing Electronic Technicians in the  
Navy"

Va.

## MAY 31, 1950

Hall, James Herrick  
A.B. 1947, Baylor University  
A.M. 1948, The George Washington  
University  
Dissertation: "Criteria for the Ad-  
ministration of Library Service in  
Christian Education in the Inde-  
pendent Autonomous Church at  
the Local Level"

D.C. Wilson, Harold Maurice  
A.B., A.M. 1948, The George Wash-  
ington University  
Dissertation: "Management Planning  
in Secondary Schools"

Ind.

## THE SCHOOL OF GOVERNMENT

## BACHELOR OF ARTS IN GOVERNMENT

## NOVEMBER 11, 1949

Abramowitz, Harry Arthur  
(With distinction)  
Adolfson, Roy Edward  
Amatayakul, Ravi  
Anderson, Nora Agnes  
Anderson, William Abbott  
Askew, William Robert  
Asowitch, Sarah Gertrude  
Ayers, William Glenn  
Baker, William Clinton  
Bakker, Cornelius Johannes  
Baldwin, Robert Buckingham  
Banker, Robert Darrell  
Barnes, Snell Hardin  
Barnett, Abby Joy  
Bauernschmidt, George William, Jr.  
Bennsky, George Michael, Jr.  
Berry, Hugh Gordon  
Bonavitch, George Michael  
Boop, Mahlon Ellwood  
Bragan, Richard Larry  
Breuer, Alexander  
Brice, Lawrence Etheridge, Jr.  
Brown, Charles Robert  
Brown, Lewis Donald  
Brown, Roy Carl  
Budsock, Leonard Edmund  
Bushmaier, William Pryor  
Byrne, Michael Joseph  
Carter, William Joseph  
Castro, Anthony Joseph  
Chittenden, Joe Daniel, Jr.  
Ciarrochi, Eli  
Clark, Allen Culling  
Clewlow, Carl William  
Cohen, Morris  
Coiburn, Katherine Stewart  
Collier, Edwin  
Cooke, Edward Andrew  
Cooper, Paul Allen

N.J. Cox, George Joseph  
Davenport, John Hobson  
Ill. Davis, James Elijah  
Siam Day, Louise Duvall  
Fla. De Camara, Richard Paul  
Tenn. (With distinction—Special honors  
in Business Administration)  
Md. De Ungria, Jose S.  
D.C. DeWitt, Maynard Browning  
Pa. Dibble, David Eugene  
D.C. Dixon, George Carlton  
N.J. Dixon, John Wainwright  
Calif. Donaldson, John Eldridge, Jr.  
Ill. Downes, John P.  
N.Y. Driscoll, John Joseph  
Md. Duncan, John David  
Md. Elliott, Robert Stanley  
D.C. Emerson, Charles William  
Pa. Faljean, Gregory Joseph  
Pa. Fitzgerald, Jack Phillips  
Md. Fortugno, Alfred Eugene  
N.Y. Franklin, Philip Earle  
Ala. Geisler, R. Gene  
D.C. Gilchrist, Wayne Richard  
W.Va. Gilman, Donald Lawrence  
S.D. Gilmartin, Francis Edward, Jr.  
Pa. Greenwald, Norman David  
D.C. Grimm, Robert John  
N.Y. Groening, Ralph Edward  
Va. Halish, Walter George  
D.C. Herring, Donald Dewar  
D.C. Holtz, Herbert Manuel  
Pa. Hude, Harry William  
D.C. Hunter, Guy Norman  
Va. Hurst, Carl Wilson, Jr.  
D.C. Hurwitz, Harlan Earl  
Va. Ikegami, David Takeshi  
N.J. Jenks, Loren Morgan, Jr.  
Md. Johnson, Henry Edwin  
D.C. Johnston, Doris

Pa.  
Va.  
N.Y.  
Va.  
Va.

Philippines  
D.C.  
D.C.  
D.C.  
Tex.  
D.C.  
N.Y.  
D.C.  
W.Va.  
Ill.  
Md.  
N.Y.  
N.C.  
N.J.  
D.C.  
Mo.  
Mo.  
Mass.  
N.Y.  
Mass.  
N.Y.  
Ill.  
Conn.  
Mass.  
D.C.  
Miss.  
D.C.  
Tenn.  
D.C.  
Hawaii  
Va.  
D.C.  
Va.



THE  
GEORGE  
WASHINGTON  
UNIVERSITY

BULLETIN

THE SCHOOL OF EDUCATION

1950-51

No. 6

THE SCHOOL OF EDUCATION

WASHINGTON, D. C.

PUBLISHED IN SEPTEMBER  
1950

BY THE UNIVERSITY



February 22, 1925

Thomas Russell Cole, Jr.  
 217 1924, Arts, Teachers College,  
 New York, N. Y.  
 A. M. 1924, The College of the  
 Holy Cross, Worcester,  
 Massachusetts.  
 President, The Graduate of  
 Holy Cross, Master of the  
 Holy Cross, Independent in the  
 West.

May 12, 1925

Mr. James H. H. H.  
 217 1924, Arts, Teachers College,  
 New York, N. Y.  
 A. M. 1924, The College of the  
 Holy Cross, Worcester,  
 Massachusetts.  
 President, The Graduate of  
 Holy Cross, Master of the  
 Holy Cross, Independent in the  
 West.

Mr. James H. H. H.  
 217 1924, Arts, Teachers College,  
 New York, N. Y.  
 A. M. 1924, The College of the  
 Holy Cross, Worcester,  
 Massachusetts.  
 President, The Graduate of  
 Holy Cross, Master of the  
 Holy Cross, Independent in the  
 West.

THE UNIVERSITY OF CHICAGO

## THE SCHOOL OF EDUCATION

1920-21

Mr. James H. H. H.  
 217 1924, Arts, Teachers College,  
 New York, N. Y.  
 A. M. 1924, The College of the  
 Holy Cross, Worcester,  
 Massachusetts.  
 President, The Graduate of  
 Holy Cross, Master of the  
 Holy Cross, Independent in the  
 West.

Mr. James H. H. H.  
 217 1924, Arts, Teachers College,  
 New York, N. Y.  
 A. M. 1924, The College of the  
 Holy Cross, Worcester,  
 Massachusetts.  
 President, The Graduate of  
 Holy Cross, Master of the  
 Holy Cross, Independent in the  
 West.



THE  
GEORGE  
WASHINGTON  
UNIVERSITY

BULLETIN

CALENDAR

---

VOL. XLIX

No. 6

---

THE SCHOOL OF EDUCATION

---

WASHINGTON, D. C.

PUBLISHED IN SEPTEMBER  
MCML

BY THE UNIVERSITY



THE  
GEORGE  
WASHINGTON  
UNIVERSITY

BULLETIN

Vol. XLIX No. 6

THE SCHOOL OF EDUCATION

WASHINGTON, D. C.

PUBLISHED IN SEPTEMBER  
MCMJ

BY THE UNIVERSITY



# CALENDAR OF THE SCHOOL OF EDUCATION

1950-51

## CALENDAR

1950-51

Registration	Monday, September 18
Academic year begins	Tuesday, September 19
First meeting of Faculty	Wednesday, September 20
Examination for Doctoral and Master's degrees	Thursday, September 21
Examination for Doctoral and Master's degrees	Friday, September 22
Examination for Doctoral and Master's degrees	Saturday, September 23
Examination for Doctoral and Master's degrees	Sunday, September 24
Examination for Doctoral and Master's degrees	Monday, September 25
Examination for Doctoral and Master's degrees	Tuesday, September 26
Examination for Doctoral and Master's degrees	Wednesday, September 27
Examination for Doctoral and Master's degrees	Thursday, September 28
Examination for Doctoral and Master's degrees	Friday, September 29
Examination for Doctoral and Master's degrees	Saturday, September 30
Examination for Doctoral and Master's degrees	Sunday, October 1
Examination for Doctoral and Master's degrees	Monday, October 2
Examination for Doctoral and Master's degrees	Tuesday, October 3
Examination for Doctoral and Master's degrees	Wednesday, October 4
Examination for Doctoral and Master's degrees	Thursday, October 5
Examination for Doctoral and Master's degrees	Friday, October 6
Examination for Doctoral and Master's degrees	Saturday, October 7
Examination for Doctoral and Master's degrees	Sunday, October 8
Examination for Doctoral and Master's degrees	Monday, October 9
Examination for Doctoral and Master's degrees	Tuesday, October 10
Examination for Doctoral and Master's degrees	Wednesday, October 11
Examination for Doctoral and Master's degrees	Thursday, October 12
Examination for Doctoral and Master's degrees	Friday, October 13
Examination for Doctoral and Master's degrees	Saturday, October 14
Examination for Doctoral and Master's degrees	Sunday, October 15
Examination for Doctoral and Master's degrees	Monday, October 16
Examination for Doctoral and Master's degrees	Tuesday, October 17
Examination for Doctoral and Master's degrees	Wednesday, October 18
Examination for Doctoral and Master's degrees	Thursday, October 19
Examination for Doctoral and Master's degrees	Friday, October 20
Examination for Doctoral and Master's degrees	Saturday, October 21
Examination for Doctoral and Master's degrees	Sunday, October 22
Examination for Doctoral and Master's degrees	Monday, October 23
Examination for Doctoral and Master's degrees	Tuesday, October 24
Examination for Doctoral and Master's degrees	Wednesday, October 25
Examination for Doctoral and Master's degrees	Thursday, October 26
Examination for Doctoral and Master's degrees	Friday, October 27
Examination for Doctoral and Master's degrees	Saturday, October 28
Examination for Doctoral and Master's degrees	Sunday, October 29
Examination for Doctoral and Master's degrees	Monday, October 30
Examination for Doctoral and Master's degrees	Tuesday, October 31



# CALENDAR OF THE SCHOOL OF EDUCATION

## 1950-51

Date	Day	Occasion
1950		
FALL TERM:		
Sept. 27-29.	Wednesday through Friday .....	Registration
Oct. 2.....	Monday .....	Academic year begins
Oct. 13.....	Friday .....	Thesis subjects of February Master's candidates due
Oct. 14.....	Saturday .....	Applications for Doctoral and Mas- ter's October comprehensive ex- aminations due
Oct. 20.....	Friday .....	Dissertation subjects of May Doc- toral candidates due
Oct. 21.....	Saturday .....	Comprehensive examinations for Doc- toral and Master's candidates
Nov. 3.....	Friday .....	Bachelor of Arts activities plans due
Nov. 11.....	Saturday .....	Fall Convocation. Holiday
Nov. 23-25.	Thursday through Saturday .....	Thanksgiving recess
Dec. 9.....	Saturday .....	Applications for Doctoral and Mas- ter's January comprehensive exam- inations due
Dec. 22- Jan. 2....	Friday through Tuesday .....	Christmas recess
1951		
Jan. 3.....	Wednesday .....	Classes resume
Jan. 5.....	Friday .....	Last day for applications for degrees to be conferred in February
Jan. 6.....	Saturday .....	Dissertations of February Doctoral candidates due
Jan. 8.....	Monday .....	Comprehensive examinations for Doc- toral and Master's candidates
Jan. 20.....	Saturday .....	Theses of February Master's candi- dates due
Jan. 22-30..	Monday through Tuesday .....	Last day of classes for the fall term
WINTER TERM:		
Feb. 1 and 2	Thursday and Friday..	Fall examination period
Feb. 5.....	Monday .....	Registration
Feb. 16.....	Friday .....	Classes resume for the winter term
Feb. 22.....	Thursday .....	Thesis subjects for May Master's candidates due
		Winter Convocation. Holiday



CALENDAR OF THE SCHOOL OF EDUCATION—Continued

Date	Day	Occasion
Feb. 24.....	Saturday .....	Activities plans due from Bachelor of Arts candidates entering the School of Education in February
March 10...	Saturday .....	Applications for Doctoral and Master's April comprehensive examinations due
March 17...	Saturday .....	Dissertation subjects of November Doctoral candidates due
March 23 and 24...	Friday and Saturday..	Easter recess
April 13....	Friday .....	Dissertations of May Doctoral candidates due
		Dissertation subjects of February Doctoral candidates due
April 14....	Saturday .....	Applications for May graduation due
May 2.....	Wednesday .....	Comprehensive examinations for Doctoral and Master's candidates
May 15....	Tuesday .....	Theses of May Master's candidates due
May 16-24.	Wednesday through Thursday .....	Last day of classes for the winter term
May 27....	Sunday .....	Winter term examination period
May 30....	Wednesday .....	Baccalaureate Sermon
		Commencement
SUMMER TERM:		
June 4.....	Monday .....	Registration
June 5.....	Tuesday .....	Classes begin for the first eight-week session
June 11....	Monday .....	Registration and the first day of classes of the pre-session
June 29....	Friday .....	Pre-session ends
July 2.....	Monday .....	Registration and first day of classes of six-week session
July 11....	Wednesday .....	Applications for Doctoral and Master's July comprehensive examinations due
July 25....	Wednesday .....	Comprehensive examinations for Doctoral and Master's candidates
July 30....	Monday .....	First eight-week summer session ends
July 31....	Tuesday .....	Registration for the second session of the summer term
Aug. 1.....	Wednesday .....	Classes begin for the second eight-week session
Aug. 6....	Monday .....	Applications for November graduation due



## CALENDAR OF THE SCHOOL OF EDUCATION—Continued

Date	Day	Occasion
Aug. 10....	Friday .....	Six-week session ends
Aug. 13....	Monday .....	Registration and first day of classes of the post-session
Aug. 31....	Friday .....	Post-session ends
Sept. 3....	Monday .....	Labor Day. Holiday
Sept. 21....	Friday .....	Second eight-week summer session ends
		Theses of November Master's candi- dates due
Sept. 24....	Monday .....	Dissertations of November Doctoral candidates due
Sept. 26-28.	Wednesday through Friday .....	Registration for the fall term of the academic year 1951-52



## THE BOARD OF TRUSTEES

The Board of Trustees of the University is composed of the President and Vice-President of the University ex officio and the following persons by election:

Robert Vedder Fleming, LL.D., *Chairman*  
Henry Parsons Erwin, A.B., *Secretary*  
Newell Windom Ellison, A.B., LL.B., *Assistant Secretary*

---

Clarence Aiken Aspinwall  
Lyman James Briggs, Ph.D., Sc.D., D.Eng., LL.D.  
John St. Clair Brookes, Jr., A.M., LL.B.  
Homer Cummings, Ph.B., LL.B., LL.D., L.H.D.  
\*Watson Davis, B.S. in C.E., C.E.  
Mrs. Joshua Evans, Jr., A.B., Ed.D.  
\*Robert Elliott Freer, A.B., LL.M.  
Charles Carroll Glover, Jr., A.M., LL.B.  
Gilbert Grosvenor, A.M., LL.D., Litt.D.  
\*Brooks Hays, A.B., LL.B., LL.D.  
John Edgar Hoover, LL.M., LL.D.  
Frank Atherton Howard, B.S. in M.E., LL.B.  
Alfred Henry Lawson, LL.B.  
Benjamin Mosby McKelway  
\*Helen Newman, LL.M.  
\*Claude Worthington Owen, LL.M.  
Walter Rupert Tuckerman, A.B., LL.B.  
Alexander Wetmore, Ph.D., Sc.D.  
\*Charles Stanley White, M.D., Sc.D.  
Lloyd Bennett Wilson

---

\* Nominated by the alumni.



## OFFICERS OF ADMINISTRATION

### THE UNIVERSITY

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
Ulysses S. Grant, 3d, B.S., Graduate United States Engineers School,  
*Vice-President*

Harold Griffith Sutton, M.S., *Director of Admissions*  
Fred Everett Nessell, A.B., *Registrar; Secretary of the Faculties*  
John Russell Mason, B.S. in L.S., A.M., *Librarian; Curator of Art*  
Myrna Pauline Sedgwick, A.B., *Administrative Secretary*  
Henry William Herzog, B.S., *Comptroller*

Donald David Blanchard, B.C.E., *Business Manager*  
Claud Max Farrington, A.M., *Director of Activities for Men*  
Virginia Randolph Kirkbride, A.M., *Director of Activities for Women*  
Alan Thomas Deibert, A.M., *Adviser to Students from Foreign Countries*

Mitchell Dreese, Ph.D., *Dean of the Summer Sessions*  
Daniel LeRay Borden, A.M., M.D., *Director of Health Administration*  
Lester Allan Smith, A.M., *Director of Alumni Relations*  
John Rust Busick, A.B., *Director of Public Relations*  
Don Carlos Faith, A.M., *Director of Veterans Education*  
Benjamin Douglass Van Evera, Ph.D., *Coordinator of Scientific Activities*

Burnice Herman Jarman, A.M., Ed.D., *Special Assistant to the President*



## THE SCHOOL OF EDUCATION

### THE FACULTY AND STAFF OF INSTRUCTION \*

Cloyd Heck Marvin, Ph.D., LL.D., *President of the University*  
James Harold Fox, A.M., Ed.D., *Dean of the School of Education*

---

Henry Grattan Doyle, A.M., LL.D., Litt.D., *Professor of Romance Languages*  
Ruth Harriet Atwell, A.M., *Professor of Physical Education for Women*  
‡Frank Mark Weida, Ph.D., *Professor of Statistics*  
Mitchell Dreese, Ph.D., *Professor of Educational Psychology*  
James Harold Fox, A.M., Ed.D., *Professor of Education*  
Thelma Hunt, Ph.D., M.D., *Professor of Psychology*  
Frances Kirkpatrick, A.M., *Professor of Home Economics*  
William Henry Myers, A.M., *Professor of Physical Education for Men*  
Burnice Herman Jarman, A.M., Ed.D., *Professor of Education*  
Chester Elwood Leese, Ph.D., *Professor of Physiology*  
Meredith Chester Wilson, B.S., *Adjunct Professor of Education*  
Ruth Coyner Little, Ph.D., *Professorial Lecturer in Education*  
§Ray LaForest Hamon, Ph.D., *Professorial Lecturer in Education*  
Charles Edward Bish, A.M., Ed.D., *Professorial Lecturer in Education*  
Cecil Wentworth Morgan, Ph.D., *Professorial Lecturer in Physical Education*  
Henry Fred Alves, A.M., *Professorial Lecturer in Education*  
§Bernath Eugene Phillips, Ph.D., *Professorial Lecturer in Physical Education*  
Robert Wendell Eaves, Ed.D., *Professorial Lecturer in Education*  
Holger Kilander, Ph.D., *Professorial Lecturer in Physical Education*  
Cyrus Maxwell, M.D., *Professorial Lecturer in Physical Education*  
William Ashby Early, A.M., *Professorial Lecturer in Education*  
Errett Glenn Featherston, Ed.D., *Professorial Lecturer in Education*  
Helen Bennett Lawrence, A.M., *Associate Professor of Physical Education for Women*  
Kathryn Mildred Towne, A.M., *Associate Professor of Home Economics*  
Joseph Henry Krupa, M.S., *Associate Professor of Physical Education for Men*

\* The President of the University, the Dean of the School, the Registrar of the University, the Director of Admissions of the University, Professors, Adjunct Professors, Associate Professors, Assistant Professors, and Instructors constitute the Faculty.  
‡ On sabbatical leave winter term 1950-51.  
§ On leave of absence 1950-51.



Elizabeth Burtner, A.M., *Associate Professor of Physical Education for Women*

Blake Smith Root, A.M., Ed.D., *Associate Professor of Education*

Ralph Windsor Ruffner, A.M., Ed.D., *Associate Professor of Education*

Lewie Woodrow Burnett, Ph.D., *Associate Professor of Education*

\*Dorothy Helene Veon, Ed.D., *Assistant Professor of Secretarial Studies*

Raymond George Hanken, B.S. in P.E., *Assistant Professor of Physical Education for Men*

Marjorie Tate, A.M., *Assistant Professor of Physical Education for Women*

Vincent James DeAngelis, B.S. in P.E., A.M. in Ed., *Assistant Professor of Physical Education for Men*

Jane Frost Hilder, A.M., *Lecturer in Education, Director of Reading Clinic*

\*Madaline Kinter Remmlein, Ph.D., J.D., *Lecturer in Education*

LuVerne Crabtree Walker, A.M., *Lecturer in Education*

Helen Barton Goodwin, A.M., *Lecturer in Education*

Ralph Waldo Foster, A.M., *Lecturer in Physical Education*

Camilla Painter Luecke, A.M., *Lecturer in Education*

Florence Mary Lumsden, A.M., Ed.D., *Lecturer in Education*

William Samuel Rumbough, A.M., Ed.D., *Lecturer in Education*

Cannon Chiles Hearne, A.M., *Lecturer in Education*

Howard Odin Johnson, A.M., Ed.D., *Lecturer in Education*

Marie Marguerite Neeb, A.M., *Clinician, Reading Clinic*

Wesley Earl Armstrong, M.S., Ed. D., *Consultant in Research*

John Robert Ludington, Ph.D., *Consultant in Research*

William Wallace Rich, A.M., *Field Service Coordinator*

Helen King Finley, A.M., *Field Service Coordinator*

#### COMMITTEES‡

#### THE DEAN'S COUNCIL§

1951

Thelma Hunt

Francis Kirkpatrick

1952

Frank Mark Weida  
Elizabeth Burtner

1953

Joseph Henry Krupa  
Blake Smith Root

\* On leave of absence 1950-51.

‡ The President of the University and the Dean of the School of Education are members ex officio of all committees.

§ Elected by the Faculty.



COMMITTEE OF ADMISSION AND ADVANCED STANDING

The Dean of the School, *Chairman*

Harold Griffith Sutton  
Frances Kirkpatrick  
William Henry Myers

Frank Mark Weida  
Burnice Herman Jarman  
Ruth Harriet Atwell

COMMITTEE ON SCHOLARSHIP

Blake Smith Root, *Chairman*

William Henry Myers

Helen Bennett Lawrence

Kathryn Mildred Towne

ADVANTAGES OF STUDY IN THE NATION'S CAPITAL

Washington is rich in the resources needed by teachers to supplement classroom instruction. In addition to the library facilities of the Library of Congress, the Library of the Office of Education and many special collections provide unexcelled opportunities for reading and research. The operation of all branches of the National Government may be observed. Among the art galleries are the National Gallery of Art, the Corcoran Gallery of Art, the Freer Art Gallery.

\* The Department of Home Economics offers a curriculum in home-making. For program a student in a special arrangement.



## GENERAL INFORMATION

### INTRODUCTORY

It is the purpose of the School of Education to prepare teachers, supervisors, and administrators for the higher ranges of educational service and to offer opportunities to teachers of experience to extend their education. The School includes the departments of Education, Physical Education, and Home Economics.\* It offers both graduate and undergraduate work. Other departments of the University provide general education and subject-matter courses needed for a well-balanced program of teacher education.

The schedule of courses is arranged to meet the convenience of both full-time and part-time students. By attending evening, Saturday, and summer classes, teachers in the schools of Washington and the vicinity may complete all the requirements for a degree without giving up their positions.

To help children and adults with reading difficulties, the School of Education operates a reading clinic for diagnosis and treatment.

### HISTORICAL DEVELOPMENT

The University began offering professional courses for teachers in 1904-5 and in 1907 it established a Division of Education. In 1909, the Division of Education became the Teachers College which, in its early years, was concerned largely with teacher preparation on the undergraduate level.

In 1928, the Teachers College became the School of Education and greater provision was made for advanced study. Since that time the graduate enrollment has steadily increased with the result that today the School has a considerably larger number of graduate than undergraduate students.

### ADVANTAGES OF STUDY IN THE NATION'S CAPITAL

Washington is rich in the resources needed by teachers to supplement classroom instruction. In addition to the library facilities of the University, the Library of Congress, the Library of the Office of Education, and many special collections provide unexcelled opportunities for reading and research. The operation of all branches of the National Government may be observed. Among the art galleries are the National Gallery of Art, the Corcoran Gallery of Art, the Freer Art Gallery,

\* The Department of Home Economics offers a curriculum in home-making. Its program is described in a special announcement.



Phillips Memorial Gallery, and the National Museum. The winter concerts and the summer Watergate series of the National Symphony Orchestra delight lovers of good music. Those interested in science find many resources for study at the National Museum, the National Zoological Park, the United States Botanic Garden, and the Aquarium of the Fish and Wildlife Service, Department of the Interior. Teachers have unique opportunities to become acquainted with the work of the Office of Education, the National Education Association, the American Council on Education, and many other national organizations with headquarters in Washington.

#### ACADEMIC STATUS

The George Washington University is on the final approved list of the Association of American Universities. This fact not only assures to students the academic standards of this association, but also is important to those who desire to transfer credits from one institution to another.

The University is also accredited by its regional accrediting agency the Middle States Association of Colleges and Secondary Schools, and is on the approved list of the American Association of University Women.

The School of Education is a member of the American Association of Colleges for Teacher Education and was a charter member of the National Association of Colleges and Departments of Education prior to the merger of that association with others to form the American Association of Colleges for Teacher Education.



## PROGRAMS FOR THE EDUCATION OF TEACHERS

### PROGRAMS LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN PHYSICAL EDUCATION

#### BACHELOR OF SCIENCE IN PHYSICAL EDUCATION FOR MEN

There are three curricula leading to this degree. The Dual-Major Teacher's Course is designed to prepare students for teaching positions in smaller schools where it is necessary to teach an academic subject in addition to physical education. The Single-Major Teacher's Course prepares for the teaching of physical education in the larger schools. The Physical Education and Recreation Course has been planned for those who wish to be prepared to direct programs of recreation in addition to the teaching of physical education.

The following courses, to be taken in the Junior College, are required for admission to the School of Education:

	Credit Hours
English .....	English 1-2 ..... 6
Social Studies .....	History 39-40, 71-72, Political Science 9-10, or Sociology 1-2 (Freshman year) ..... 6
	Economics, History, or Political Science (Sophomore year) ..... 6
Science .....	Biology 1-2 or Zoology 1-2 (Freshman year) ..... 6 or 8
Physical Education ..	Physical Education 1-2, 11-12 ..... 4
Curriculum Electives.	Physical Education 43-44, 47; Speech I or II (Freshman year) ..... 9
	Physical Education 45-46, 49, 50, 58; Psychology 1, 22 (Sophomore year) ..... 18
Elective .....	..... 9
Total.....	60 or 62



The minimum requirements for this degree are 66 credit hours, distributed as follows:

#### Single-Major and Subject-Certification Teacher's Course

The minimum requirements for this degree are twenty-one credit hours in education, twenty-three credit hours in physical education, nineteen credit hours in an academic teaching field, and three credit hours in physiology, distributed as follows:

JUNIOR YEAR		SENIOR YEAR	
	Credit Hours		Credit Hours
Learning and Teaching.....	6	Common Teaching Skills.....	3
Society and the School.....	6	Observation and Practice Teaching .....	6
Corrective Physical Education and Physical Examinations .....	3	History and Principles of Physical Education .....	3
Methods and Practice in Teaching Physical Education Activities..	4	Methods of Teaching Physical Education Activities for Secondary Schools II .....	4
Methods and Materials of Health Education .....	3	Tests and Measurements in Physical Education .....	3
Physiology .....	3	Organization and Administration of Physical Education .....	3
Academic teaching field .....	8	Academic Teaching field .....	11
Total .....	33	Total .....	33

#### Single-Major Teacher's Course

The minimum requirements for this degree are twenty-one credit hours in education, thirty credit hours in physical education, three credit hours in physiology, and twelve credit hours of electives:

JUNIOR YEAR		SENIOR YEAR	
	Credit Hours		Credit Hours
Learning and Teaching .....	6	Common Teaching Skills .....	3
Society and the School .....	6	Observation and Practice Teaching .....	6
Leadership Organization in the Intramural Program .....	4	History and Principles of Physical Education .....	3
Methods and Practice in Teaching Physical Education Activities..	4	Corrective Physical Education and Physical Examinations ...	3
Methods of Teaching Physical Education Activities for Secondary Schools II .....	4	Tests and Measurements in Physical Education .....	3
School and Community Health Programs .....	3	Organization and Administration of Physical Education .....	3
Methods and Materials of Health Education .....	3	Elective .....	12
Physiology .....	3	Total .....	33
Total .....	33		



## Physical Education and Recreation Course

The minimum requirements for this course are 66 credit hours, distributed as follows:

JUNIOR YEAR	Credit Hours	SENIOR YEAR	Credit Hours
Learning and Teaching .....	3	Common Teaching Skills .....	3
Society and the School .....	6	Observation and Practice Teaching .....	6
Introduction to Recreation .....	2	History and Principles of Physical Education .....	3
Leadership Organization in the Intramural Program .....	4	Methods and Materials of Health Education .....	3
Physical Education Activities ..	4	Tests and Measurements in Physical Education .....	3
Camp Leadership .....	1	Organization and Administration of Physical Education .....	3
Group Leadership Activities ....	6	Group Leadership Activities II ..	6
Electives .....	7	Community Organization for Recreation .....	3
Total .....	33	Administration and Supervision of Recreation .....	3
		Total .....	33

## BACHELOR OF SCIENCE IN PHYSICAL EDUCATION FOR WOMEN

There are three curricula leading to the degree. The Dual Major Teacher's Course is designed to prepare students for positions in schools where it is necessary to teach an academic subject in addition to Physical Education.

The Single Major Teacher's Course prepares for the teaching of Physical Education in the larger schools. Within this course there is opportunity for specialization in dance, sports, or correctives.

The Physical Education and Recreation Course has been planned for those who wish to be prepared to direct programs of recreation in addition to teaching Physical Education.

For graduate courses in these areas see Programs of Study for the Degree of Master of Arts in Education, Page 24-27.

The following courses, to be taken in the Junior College, are required for admission to the School of Education:

	Credit Hours
English .....	6
English 1-2 .....	6
English 51-52, 71-72, or 91-92 .....	6
Social Studies .....	6
History 39-40, 71-72; Political Science 9-10; or Sociology 1-2 .....	6 or 8
Science .....	4
Biology 1-2 or Zoology 1-2 .....	4
Physical Education ..	4
Physical Education for Women 1-2, 11-12 .....	4
Curriculum Electives ..	16
Physical Education 43-44 (Freshman year) .....	16
Physical Education 45-46, 49, 50; Psychology 1, 22 Sophomore year) .....	16
Academic Electives .. (Each year) .....	6 or 8
Total .....	60 or 62



## Dual or Single Major Teacher's Course

The student desiring to prepare herself to teach another subject in addition to Physical Education for Women may do so by choosing her elective hours from one subject-matter field with the advice of the Dean of the School of Education. Relevant work completed in the Junior College may be counted in this subject-matter field.

JUNIOR YEAR	Credit Hours	SENIOR YEAR	Credit Hours
Learning and Teaching .....	6	Society and the School .....	6
Physical Education in the Elementary School .....	4	Observation and Practice Teaching .....	6
First Aid and Care of Athletic Injuries .....	2	History and Principles of Physical Education .....	3
Corrective Physical Education and Physical Examinations .....	6	Methods and Practice in Teaching Physical Education Activities..	4
Methods of Teaching Physical Education Activities for Secondary Schools II .....	4	Tests and Measurements in Physical Education .....	3
School and Community Health Programs .....	3	Organization and Administration of Physical Education .....	3
Methods and Materials of Health Education .....	3	Academic teaching field or elective .....	9
Camp Leadership .....	1		
Physiology .....	3		
Total .....	32	Total .....	34

## Physical Education and Recreation Course

JUNIOR YEAR	Credit Hours	SENIOR YEAR	Credit Hours
Society and the School.....	6	Observation and Practice Teaching .....	6
Introduction to Recreation....	2	History and Principles of Physical Education .....	3
Physical Education in the Elementary School .....	4	Methods and Practice in Teaching Physical Education Activities..	4
First Aid and Care of Athletic Injuries .....	2	Organization and Administration of Physical Education.....	3
Corrective Physical Education and Physical Examinations...	6	Group Leadership Activities II..	6
Leadership Organization in the Intramural Program .....	4	Community Organization for Recreation .....	3
Methods of Teaching Physical Education Activities for Secondary Schools II .....	4	Administration and Supervision of Recreation .....	3
Camp Leadership .....	1	Elective .....	5
Group Leadership Activities I...	4		
Total .....	33	Total .....	33



## PROGRAMS LEADING TO THE DEGREE OF BACHELOR OF ARTS IN EDUCATION

Programs leading to the degree of Bachelor of Arts in Education have three main objectives: (1) provision of a general educational background, (2) a functional command of ideas, concepts, knowledges, and skills in one or more teaching fields, and (3) a mastery of basic professional information and skills adequate for a beginning teacher. Since the contents of teaching fields differ in scope and complexity, some programs are longer than others in terms of credit hours. None require less than 126 credit hours of satisfactory work, exclusive of required Physical Education. Normally, 60 credit hours of the total requirement is completed in the Junior College of the University or in an equivalent institution elsewhere.

### GENERAL EDUCATION

The general educational backgrounds needed by prospective teachers are obtained through: (1) pre-college education, (2) college courses, (3) work experience, (4) leadership activities, (5) participation in student campus activities, and (6) utilization of off-campus cultural opportunities.

*College course requirements.*—Course requirements depend in part upon the senior high school credits presented for college admission. They are as follows:

ENGLISH		Credit Hours
English 1-2: Freshman English.....	Special placement examinations, required of all entering freshmen, are conducted by the English Department. Those students who show marked superiority may be exempted from one or both terms of the course.	6
One of the following survey courses in literature.....		6
English 51-52: Introduction to English Literature		
English 71-72: Introduction to American Literature		
English 91-92: Introduction to European Literature		

### FOREIGN LANGUAGES

French, German, Latin, or Spanish.....  
A student offering for admission four acceptable high school units of a single foreign language, or the equivalent, is not required to take any foreign language. If he offers three units, he must complete the second term of the second-year college course in the same language. If he offers two units, he must complete the entire second-year college course in the same language. If he offers one unit, he must complete the second term of the first-year college course and the entire second-year course in the same language.



## SOCIAL STUDIES

History 71-72: The Development of American Civilization.....	6
Another Social Science chosen from the following courses.....	6
Economics 1-2: Introductory Economics	
Geography 51, 52: Introduction to Geography; Introduction to Earth Sciences	
History 39-40: The Development of European Civilization	
Political Science 9-10: Government of the United States	
Sociology 1-2: Introductory Sociology	
A student offering for admission two or more acceptable senior high school units in the Social Studies may be exempted from the second part of this requirement.	

## SCIENCE AND MATHEMATICS

Two terms of science or mathematics to supplement senior high school courses in these fields and chosen from the following.....	6-8
Biology 1-2: Survey in Biology	
Botany 1-2: Structure and Functions of the Flowering Plant; Survey of the Plant Kingdom	
Chemistry 3-4: Survey of Physical Sciences	
Chemistry 11-12: General Chemistry	
Mathematics 3 and 6: College Algebra; Plane Trigonometry	
Mathematics 6 and 12: Plane Trigonometry; Analytic Geometry	
Physics 5 and 6, or 6 and 7: General Physics	
Zoology 1-2: Introduction to Zoology	

## OTHER COURSES

Psychology 1: General Psychology .....	3
Psychology 22: Educational Psychology or	
Psychology 29: Child Psychology .....	3
Speech 1: Effective Speaking or	
Speech 11: Training of the Speaking Voice.....	3
Students who demonstrate marked superiority in Speech may be exempted from this requirement. Such exemption is granted only on the recommendation of the Department of Speech.	
Statistics 53: Introduction to Statistics in Psychology and Education	3

## ACADEMIC ELECTIVES

Electives may be increased through the various exemptions.

## PHYSICAL EDUCATION

Physical Education 1-2 and 11-12	
A student may be exempted from this requirement if registered for less than three courses or regularly employed during the day.	
Minimum required credits.....	60 or 62

*Work experience, leadership activities, participation in student campus activities, and the utilization of off-campus cultural opportunities.*— Obviously, these cannot be prescribed. Nevertheless, they constitute an important part of the general educational background of prospective



teachers. In conference with a staff member of the Department of Education assigned as his general adviser, the student is expected to plan adequate experiences in these areas. Not later than one month after matriculation in the School of Education the student must file in the Office of the Dean a statement of such plans approved by his adviser. He must also keep his adviser informed concerning the fulfillment of his plans and to this end include in plans filed, scheduled conferences with his adviser.

Success of the student in enriching his general educational background by these means will be taken into consideration at the end of the first term of the junior year when the faculty will review the qualifications of candidates to determine any who are not of sufficient promise as prospective teachers to warrant continuation of their candidacies. Success in these activities will also be considered when the list of candidates is again reviewed early in the last term of the senior year immediately after the results of the National Teacher Examinations are available. In estimating the success of the student in this connection, more weight will be given to evidence of initiative, eagerness to make the most of each experience, balance, and quality of experience than to the number of different experiences.

Although the student is not required to establish a program of non-academic activities until he becomes a degree candidate in the School of Education, he is advised to do so as soon as he enters the Junior College. To this end, he should consult with the Junior College adviser of students in the pre-Education curriculum soon after entering the Junior College. Whatever is accomplished in this connection while in the Junior College will reduce the obligations of the student after admission to the School of Education.

#### TEACHING-FIELD PREPARATION

Teaching-field preparation depends upon the kind of teaching position for which the student is preparing. Those planning to teach in elementary schools need a degree of competency in several fields. Those preparing to teach in junior or senior high schools must demonstrate competency in a major teaching field and a minor teaching field. Ordinarily, students preparing to teach in evening schools for adults are required to prove competency in only one teaching field.

The student should begin teaching-field preparation while in the Junior College and should make provision for it in planning his program of studies.

Teaching-field requirements include satisfactory completion of prescribed academic courses, a satisfactory score on the special field examination of the National Teacher Examinations, and satisfactory completion of the prescribed special methods course.



Prescribed academic courses vary in number in accordance with the scope and complexity of the teaching field and the license requirements of the various states. Minimum academic course requirements for each major teaching field are listed on succeeding pages. Minor teaching-field requirements are somewhat less than those of a major field. They are determined in conference with an adviser.

The prescribed course in special methods is concerned primarily with methods of initiating, guiding, and evaluating learning experiences dealing with the content of the teaching field. It attempts to bring to the student specific suggestions drawn from the accumulated experience of successful teachers. However, in addition, the course reviews the teaching-field content currently in use in schools and the examination at the end of the course provides the final test of competency in the teaching field.

### Prescribed Courses in the Various Teaching Fields

ART		Credit Hours
One two-term course from the following group.....		6
Art 121-22: World History of Art		
Art 151-52: Modern Art		
Art 161-62: History of Art Criticism		
One two-term course from the following group.....		6
Art 101-2: The Design of the Home		
Art 141-42: Interior Decoration		
Art 143-44: Folk Arts of America		
Two two-term courses from the following group.....		24
Art 67-68: Life and Portrait—Drawing and Painting		
Art 73-74: Still Life and Portrait—Drawing and Painting; Antique Drawing		
Art 165-66: Life and Portrait—Drawing and Painting		
Art 175-76: Composition		
Art 179-80: Sculpture		
Art 183-84: Design and Commercial Art		
Art 185-86: Advanced Commercial Art		
Education 141-42: Teaching Art.....		6
Total.....		41
BIOLOGY		
Biology 1-2: Survey in Biology.....		6
Botany 1: Structure and Functions of the Flowering Plant.....		3
Zoology 1-2: Introduction to Zoology.....		8
Physiology 115: Physiology.....		3
Home Economics 152: Nutrition.....		3
Additional courses as approved by the Adviser.....		12
Education 144: Teaching Science.....		3
Total.....		38



## BUSINESS EDUCATION

Economics 1-2: Introductory Economics.....	6
Accounting 1: Introductory Accounting.....	3
Secretarial Studies 51: Business Correspondence and Reports.....	3
Additional courses as prescribed in <i>one</i> of the following groups:	

## Group 1—Secretarial Studies

Secretarial Studies 2: Intermediate Typewriting.....	3
Secretarial Studies 12: Shorthand and Transcription.....	3
Secretarial Studies 15: Advanced Shorthand, Typewriting, and Transcription.....	3
Secretarial Studies 16: Secretarial Shorthand, Typewriting, and Transcription.....	3
Secretarial Studies 54: Secretarial Practice.....	3
Additional courses as approved by the Adviser.....	6
Education 150: Teaching Secretarial Studies.....	2
Total.....	35

## Group 2—Bookkeeping, Business Arithmetic, and Business Law

Accounting 2: Introductory Accounting.....	3
Business Administration 101: Business Organization and Combination.....	3
Business Administration 102: Business Management.....	3
Statistics 52: Mathematics of Finance.....	3
Political Science 127-28: Commercial Law.....	6
Two of the following courses, as approved by the Adviser.....	6
Accounting 137: Financial Statement Analysis	
Business Administration 121: General Insurance	
Business Administration 131: Business Finance	
Business Administration 138: Investments	
Business Administration 155: Analysis of Financial Statements	
Economics 121: Money and Banking	2
Education 150: Teaching Secretarial Studies.....	
Total.....	38

## Group 3—Distributive Education

Business Administration 141: Principles of Marketing.....	3
Business Administration 142: Marketing Problems.....	3
Business Administration 145: Sales Management.....	3
Business Administration 151: Retailing.....	3
Four of the following courses, as approved by the Adviser.....	12
Business Administration 146: Sales Management	
Business Administration 147: Advertising	
Business Administration 150: Principles of Purchasing	
Business Administration 158: Traffic Management	
Business Administration 174: Introduction to Foreign Trade	
Business Administration 176: Exporting and Importing	2
Education 150: Teaching Secretarial Studies.....	
Total.....	38



## CHEMISTRY

Chemistry 11-12: General Chemistry.....	8
Chemistry 21: Qualitative Inorganic Analysis.....	4
Chemistry 22: Quantitative Inorganic Analysis.....	4
Chemistry 151-52: Organic Chemistry.....	8
Chemistry 191: History of Chemistry.....	2
One of the following two-term courses.....	8-10
Chemistry 111-12: Physical Chemistry	
Biochemistry 221-22: Biochemistry	
Education 144: Teaching Science.....	3
Total.....	37-39

## ELEMENTARY EDUCATION

Education 113: Elementary School Art.....	3
Education 114: Elementary School Music.....	3
Education 111-12: Elementary School Curriculum.....	6
Education 127: Children's Literature.....	3
Biology 1-2: Survey in Biology.....	6
Chemistry 3-4: Survey of Physical Sciences.....	8
Geography 51: Introduction to Geography.....	3
Geography 52: Introduction to Earth Science.....	3
Political Science 9-10: Government of the United States.....	6
Physical Education 51-52: Physical Education in Elementary School	4
Total.....	45

## ENGLISH

English 1-2: Freshman English.....	6
Speech 1: Effective Speaking or	
Speech 11: Training the Speaking Voice.....	3
English 51-52: Introduction to English Literature.....	6
English 72: Introduction to American Literature.....	3
English 125: The Evolution of Modern Speech.....	3
English 126: The Appreciation of Literature.....	3
English 135-36: Shakespeare.....	6
One of the following two-term courses or two one-term courses.....	6
English 181-82: The English Novel	
English 183-84: The English Drama	
English 151-52: The Romantic Movement	
English 161-62: Victorian Literature	
English 175-76: The American Drama	
English 177-78: American Fiction	
Education 136: Teaching English.....	3
Total.....	39

## FRENCH

French 1-2: First-year French.....	6
French 3-4: Second-year French.....	6
French 109-10: French Conversation and Composition.....	6



French 51-52: Survey of French Literature.....	6
Additional courses in French as approved by the Adviser.....	12
Education 146: Teaching Foreign Languages.....	3
Total.....	39

## GERMAN

German 1-2: First-year German.....	6
German 3-4: Second-year German.....	6
German 121-22: Conversation and Composition.....	6
German 115-16: Survey of German Literature.....	6
Additional courses in German as approved by the Adviser.....	12
Education 146: Teaching Foreign Languages.....	3
Total.....	39

## HISTORY

History 39-40: The Development of European Civilization.....	6
History 71-72: The Development of American Civilization.....	6
Six credit hours, as approved by the Adviser, from each of the following groups .....	18
Group 1—American History	
History 171-72: Social History of the United States	
History 181-82: Diplomatic History of the United States	
History 173: Representative Americans	
History 174: Economic History of the United States	
Group 2—European History	
History 119: Intellectual History of Europe During the Middle Ages	
History 120: Intellectual Aspects of the Renaissance and the Reformation	
History 130: Nationalism	
History 145-46: Russian History	
History 147: Economic History of Europe	
History 148: Oversea Expansion of Europe	
History 149-50: European Diplomatic History	
History 151-52: English History	
Group 3—Latin American History	
History 161-62: Latin American History	
History 163-64: Current Latin American Problems	
Additional credit hours, as approved by the Adviser from one of the foregoing groups .....	6
Education 138: Teaching the Social Studies.....	3
Total.....	39

## MATHEMATICS

Mathematics 3: College Algebra.....	3
Mathematics 6: Plane Trigonometry.....	3



## The School of Education

19

Mathematics 12: Analytic Geometry.....	3
Mathematics 19: Differential Calculus.....	3
Mathematics 20: Integral Calculus.....	3
Mathematics 125: Advanced Algebra.....	3
Mathematics 132: Differential Equations, or	
Mathematics 139: Advanced Calculus.....	3
An additional course in Mathematics as approved by the Adviser....	3
Statistics 52: Mathematics of Finance.....	3
Education 140: Teaching Mathematics.....	3
Total.....	30

### PHYSICS

Physics 5, 6, 7, and 8: General Physics.....	11
Physics 55: Physical Measurements.....	2
Physics 101: Mechanics.....	3
Physics 105: Principles of Electricity.....	3
Physics 106: Optics.....	3
Mathematics 12: Analytic Geometry.....	3
Mathematics 19: Differential Calculus.....	3
Mathematics 20: Integral Calculus.....	3
Chemistry Elective—Chemistry 11-12: General Chemistry or	
Chemistry 12-21: General Chemistry and Qualitative Inorganic	
Analysis.....	8
Six credit hours to be selected from the following.....	6
Physics 102: Heat and Thermodynamics	
Physics 113-14: Atomic and Molecular Physics	
Physics 128: Sound	
Physics 132: Electronics	
Physics 155-56: Advanced Physical Measurements	
Education 144: Teaching Science.....	3
Total.....	48

### SOCIAL STUDIES

History 39-40: The Development of European Civilization.....	6
History 71-72: The Development of American Civilization.....	6
Political Science 9-10: Government of the United States.....	6
Two of the following courses.....	12
Economics 1-2: Introductory Economics	
Geography 51, 52: Introduction to Geography and Earth Sciences	
Sociology 1-2: Introductory Sociology	
Additional second-group courses as approved by the Adviser from one	
of the following fields: Economics, Geography, History, Political	
Science, Sociology.....	12
Education 138: Teaching Social Studies.....	3
Total.....	45

### SPANISH

Spanish 1-2: First-year Spanish.....	6
Spanish 3-4: Second-year Spanish.....	6



Spanish 109-10: Spanish Conversation and Composition.....	6
Additional courses as approved by the Adviser.....	18
Education 146: Teaching Foreign Languages.....	3
Total.....	39

## SPEECH

Speech 1: Effective Speaking.....	3
Speech 2: Speech Making.....	3
Speech 11: Training the Speaking Voice.....	3
Speech 32: Oral Reading.....	3
Speech 102: Oral Interpretation of Literature.....	3
Additional courses as approved by the Adviser from the following...	15
Speech 41: Parliamentary Law	
Speech 101: Introduction to Phonetics	
Speech 109: Radio Speaking and Production	
Speech 131: Group Discussion and Conference Leadership	
Speech 136: Public Discussion and Debate	
Speech 151-52: Acting	
Speech 163-64: Play Direction	
Speech 175-76: Speech Correction	
Education 136: Teaching English.....	3
Total.....	33

## PROFESSIONAL EDUCATION

The basic professional information and skills needed by beginning teachers are provided through four one-year courses, two in each of the junior and senior years. Lectures and class discussions are closely coordinated with field work. Instruction is differentiated to meet the needs of those preparing to teach on the various levels—elementary school, junior high school, senior high school, and adult.

## Professional Courses

Education 109-10: Learning and Teaching.....	6
Education 121-22: Society and the School.....	6
*Education 131: Common Teaching Skills.....	3
*Education 136 to 150: Special Methods.....	2-6
Education 133-34: Observation and Practice Teaching.....	6
Total.....	23-27

*Learning and Teaching.*—Candidates enrolled in four-year programs leading to the degree of Bachelor of Arts take this course in the junior year. Those enrolled in five-year programs take it in the senior year.

The course attempts to promote a functional understanding of the nature of learning and teaching by focussing the attention of the student

\* Not required for those preparing for elementary school teaching.



upon actual classroom situations and the psychological, sociological, and educational principles relevant to them.

Classes meet for lecture and discussion two hours a week. At least an equal amount of time is spent in observation and study of classroom situations. Class discussion normally revolves around these field experiences.

The course, particularly during the first term, is also intended to provide the student with exploratory experiences of assistance to him in deciding whether or not his choice of the profession of teaching has been wise. The student's performance in connection with the course is one of the factors considered when the Faculty reviews the list of candidates who have completed the first term of the junior year (senior year for those enrolled in five-year programs).

*Society and the School.*—This course is also taken in the junior year by candidates enrolled in four-year programs (senior year by those in five-year programs).

The first term of the course attempts to promote an understanding and appreciation of the role of schools in the sound promotion of the enduring interests of our democratic society. More particularly, it attempts to develop a functional understanding of the contributions of all social agencies in the education of people and of desirable cooperative working relations that help the school to play its part as a member of the institutional "team" of the community.

The second term of the course is concerned with study of the school as a whole—its purposes, program of studies, out-of-class activities, general organization, and major instructional problems. Although schools at all levels are studied, students give particular attention to schools at the level within which they are preparing to teach.

During both terms of this course classes meet for lecture and discussion two hours a week. At least an equal amount of time is spent in field study. During the first term each student makes an extended study of one cooperating social institution and shorter studies of ten others. In the second term extended study of schools at the level of the student's special interest is supplemented by briefer studies of schools at other levels. Class discussion is largely determined by field experiences.

This course is also intended to provide the student with exploratory experiences of guidance value. The performance of the student in the first term of the course is also given careful consideration by the Faculty in its review of the list of candidates at the beginning of the second term of the junior year (senior year for those enrolled in five-year programs).

*Common Teaching Skills.*—Those enrolled in four-year programs take



this course in the senior year. Those enrolled in five-year programs take it in the fifth year.

The course is concerned with the skills needed by teachers in connection with classroom management, homeroom procedures, administrative routines, activity sponsorship, group planning, and public relations.

As in other professional courses, classes meet two hours a week for lecture and discussion and students devote at least an equal amount of time to field work. The observation of classroom teaching done in connection with the Observation Course (Education 133), for which students are normally enrolled concurrently, supplements the field work of the course.

*Special Methods Courses.*—Associated with each teaching field is a course dealing with its special teaching problems. In addition to the study of practices followed by successful teachers, actual teaching content as found in current texts and courses of study is reviewed. Needed content, not included in academic courses available for teaching field preparation, is taught in these courses.

*Observation and Practice Teaching.*—This course is taken in the senior year by students enrolled in four-year programs (in the fifth year by those in five-year programs).

It begins with the observation of classroom teaching in selected situations. Assumption of responsibility for teaching functions is gradual, leading eventually to practice in the complete direction of classroom activities. Those preparing to teach in secondary schools have the opportunity of observing and doing practice teaching in both major and minor teaching fields and on both junior and senior high school levels. The course is directed by a full-time member of the faculty of the School of Education. The work of each student is under the direct supervision of a critic teacher, selected because of unusual success in teaching, ability to supervise, and broad understanding of educational problems. Critic teachers are part-time members of the instructional staff of the School. Observation and teaching are done in the public schools of the metropolitan area of Washington, assuring practice in situations comparable to those the student is likely to face on becoming a teacher.

#### ADMISSION

To be admitted to candidacy for the degree of Bachelor of Arts in Education, the applicant must: (1) hold an Associate in Arts degree based on the Education Curriculum in the Junior College or the equivalent from another accredited higher institution, or a certificate of graduation from an approved normal school or the equivalent; (2) have a quality-point index of 2.00 (average grade of C) counting "Incomplete"



grades as "F"; (3) have demonstrated a genuine interest in teaching and possess personality traits that give promise of success as a teacher; and (4) have an interview in the Office of the School of Education.

#### FIVE-YEAR PROGRAMS LEADING TO THE DEGREES OF BACHELOR OF ARTS AND MASTER OF ARTS IN EDUCATION

Five-year programs are designed: (1) to permit more adequate teaching field and professional preparation, (2) to prepare for special teaching positions, and (3) to meet teaching-certificate requirements based upon five years of preparation.

Students in these programs usually devote the junior year to additional teaching field preparation and general education. Ordinarily teaching field preparation is continued in the senior year and the first two professional courses (Education 109-110, 121-22) are taken. The work of the fifth year includes the remaining undergraduate professional courses and the balance of graduate courses needed to meet the requirements of the degree of Master of Arts.

Candidates must have a quality-point index of at least 2.50 before beginning the work of the senior year. As much as 18 credit hours of the work of the senior year may be taken for graduate credit. Observation and Practice Teaching, taken in the fifth year, may not be taken for graduate credit.

Candidates enrolled in five-year programs are able to prepare more adequately in their major or minor teaching fields, or in both. Additional teaching field courses must be approved by the Adviser in the teaching field concerned.

The five-year plan of study also provides an opportunity for candidates to prepare to teach "common learnings" courses in one or more of the various core curriculum plans now being adopted in many secondary schools. Such programs need to be carefully planned to meet the demands of the situation in which the candidate hopes to teach.

A number of cities and some states require five years of satisfactory preparation before issuing certain teaching certificates. Candidates seeking such certificates should familiarize themselves with the requirements of the community or state concerned and plan their programs accordingly.

Five-year programs must meet all the requirements of the degrees of Bachelor of Arts and Master of Arts in Education, and must be approved by the Adviser designated for these programs.



## PROGRAMS LEADING TO THE DEGREE OF MASTER OF ARTS IN EDUCATION

Programs of study leading to the degree of Master of Arts are designed: (1) to enable teachers of experience to increase their knowledge of professional and academic information and skills, (2) to prepare for special types of educational service, and (3) to provide opportunities for graduates of liberal arts colleges to acquire needed professional education.

Programs are planned in conference with the designated Adviser and take into consideration the interests of the candidate, his previous background, and the certification requirements of the state and locality in which he plans to teach.

### PLANS OF STUDY

Two general plans of study lead to the degree.

*Plan 1.*—This plan requires a minimum of 30 hours of graduate credit, including a thesis carrying 6 hours of graduate credit.

*Plan 2.*—This plan requires a minimum of 33 hours of graduate credit, including a course in *Educational Research Methods and Procedures* carrying 3 hours of graduate credit.

Graduate work completed in other accredited institutions of learning may be credited toward the Master's degree, but a minimum of 30 credit hours must be completed in the School of Education of The George Washington University.

Under Plan 1, a minimum of 12 credit hours, in addition to the thesis, must be from courses planned primarily for graduate students (third-group courses). Under Plan 2, a minimum of 18 credit hours, in addition to the course in *Educational Research Methods and Procedures*, must be from third-group courses. Under either plan a minimum of 12 credit hours, not including the thesis or the research course, must be from courses offered in the Department of Education.

Programs may provide for additional academic preparation in one or more teaching fields. In such cases, however, undergraduate and graduate courses combined must be at least equivalent to the undergraduate requirements for the degree of Bachelor of Arts in Education in the teaching field concerned.

Programs are normally based upon undergraduate preparation equivalent to the requirements of the degree of Bachelor of Arts in Education (see pages 11-12). Candidates with less professional preparation must make up their deficiencies either prerequisite to or as part of their graduate study.



Each candidate must file in the Office of the Dean not later than one month after admission to the School of Education a program of study approved by his Adviser.

All candidates must take, at one of the designated periods, a professional comprehensive examination which shall take into account the candidate's area of specialization.

#### PROGRAMS OF STUDY

##### Administration of Public School Systems

Programs of those interested in the position of school superintendent customarily include courses in General Administration, Supervision, and Administration of a School System. Additional courses are chosen as needed from Adult Education, Curriculum, Elementary Education, Guidance, Public Relations, School Finance, School Law, School Plant Planning, and Secondary Education.

##### Adult Education

Programs of those particularly interested in the education of adults may or may not include additional teaching-field preparation. In addition to six credit hours of work in Adult Education professional courses may be chosen from Audio-visual Education, Curriculum, Employee Training, Evaluation, Guidance, History of Education, Mental Hygiene, and Philosophy of Education.

##### Agricultural Extension Education

These programs are designed for those with successful experience in agricultural extension education. Candidates follow *Plan 1*, writing a thesis approved by representatives of the Extension Service of the United States Department of Agriculture. Six credit hours of work, in addition to the thesis, are devoted to agricultural extension education, by special arrangement with the Extension Service of the United States Department of Agriculture. The remainder of the program is planned in accordance with the interests and needs of the candidate and usually includes courses in Supervision, Adult Education, and Secondary Education. Courses in Administration, Curriculum, Evaluation, Group Leadership, Guidance, Personnel Psychology, Research, Speech, and Statistics may also be chosen.

##### Elementary Education

Programs provide for three fields of specialization in elementary education: Early Childhood Education, The Intermediate Grades, and Elementary School Administration. In addition to graduate courses in these fields programs may include courses in Child Growth and Devel-



opment, Children's Literature, Curriculum, Evaluation, History of Education, Mental Hygiene, Philosophy of Education, Reading, Research, and Speech.

#### Employee Training

Programs for those interested in the training of employees in business, industry, and government normally include courses in Employee Training and Adult Education. Additional courses are chosen from Audio-visual Education, Curriculum, Guidance, Mental Hygiene, Personnel Psychology, Philosophy of Education, Public Relations, and Techniques of Counseling.

#### Guidance

Programs for those especially interested in guidance usually include courses in Educational and Vocational Guidance, Techniques of Counseling, Guidance in Secondary Schools, and Occupational and Educational Information. Additional courses frequently chosen include Adult Education, Curriculum, Employee Training, Evaluation, Individual Psychological Testing, Personnel Psychology, Philosophy of Education, Psychological Tests, Secondary Education, and Test Construction.

#### Physical Education

Programs of candidates who have had undergraduate training in Physical Education may include twelve credit hours of work in Health Education, Physical Education, and Recreation. Four graduate courses: *Problems in Physical Education*, *Problems in Health Education*, *Evaluation in Physical Education*, and *Physical Education for the Atypical*, are offered, two each year in alternate years. Certain undergraduate courses may also be taken for graduate credit. These are available in the areas of Camping, Dance, Physical Education, and Recreation.

As a rule these programs include six credit hours of work in Secondary Education. Additional courses are chosen from Audio-visual Education, Curriculum, Extra-classroom Activities, Guidance, Philosophy of Education, Public Relations, and Supervision.

If *Plan 1* is followed the thesis problem may be from the field of Physical Education.

#### Secondary Education

Those who desire additional teaching-field preparation may combine advanced subject-matter courses in an academic field with professional courses. Programs usually include six credit hours of work in Secondary Education with additional courses chosen from Audio-visual Education, Curriculum, Extra-classroom Activities, Guidance in Secondary Schools, Philosophy of Education, Research, and Vocational Education.



Programs for those interested in secondary school administration normally include courses in General Administration, Supervision, and Secondary School Management. Additional courses may be chosen from Curriculum, Guidance, Philosophy of Education, Public Relations, Research, School Law, School Plant Planning, and Secondary Education.

#### ADMISSION

To be admitted to candidacy for the degree of Master of Arts in Education the applicant must: (1) hold a Bachelor's degree from an accredited institution; (2) have an undergraduate quality-point index of 2.50 or above (C + average); (3) have demonstrated a genuine interest in teaching; (4) be in possession of personality traits that give promise of better-than-average success as a teacher.

To be admitted to candidacy in programs designed to prepare for service in guidance and administration two years of successful teaching experience are prerequisite.



## PROGRAM LEADING TO THE DEGREE OF DOCTOR OF EDUCATION

The requirements for the degree of Doctor of Education cannot be stated in credit hours, but they consist in general of at least two full years of work beyond the degree of Master of Arts in Education or the equivalent. The programs of study are designed to prepare students for administrative or supervisory positions, the teaching of education in normal schools or colleges, the teaching of an academic subject in schools or colleges, or for specialized types of educational service. The work is given a practical rather than a theoretical bent, and emphasizes the mastery and application of subject matter, both in the study requirements and in the dissertation. Special emphasis is placed upon the professional success of the candidate.

The candidate's program of study depends for the most part upon his previous educational background and his professional objective. Opportunities are provided for study leading to the following professional objectives:

School Superintendent  
Secondary School Principal  
Supervisor  
Director of Guidance

Director of Curriculum Development  
Professor of Education  
Specialist in Educational Research

### QUALIFICATIONS OF THE APPLICANT

The candidate for the degree of Doctor of Education must have completed (1) graduate work in fields prerequisite to his objective, equivalent to that required for the degree of Master of Arts in Education in The George Washington University, and (2) at least three years of successful educational experience.

### ADMISSION TO CANDIDACY

To be admitted to candidacy for the degree the applicant must be accepted by the Faculty of the School of Education on the basis of an examination conducted by a committee appointed by the Dean. This examination will usually include the following: (1) a written examination involving problems related to the applicant's background; (2) a scholastic-aptitude test; (3) an oral examination.

### CONSULTATIVE COMMITTEE

If the applicant is accepted as a candidate, his consultative committee, in cooperation with the candidate, will (1) determine the candidate's fields of study, in each of which the candidate must pass a written



examination at least eight months before he presents himself for the degree; (2) formulate a list of course requirements and of readings that will assist him in preparing for these examinations; and (3) designate the tools of investigation that will be needed by the candidate in the prosecution of his study. These tools may include one foreign language, or more, statistical methods, historical criticism, or any others considered essential by the committee. An examination in the tools designated must be passed by the candidate before he takes his comprehensive examination.

#### THE DISSERTATION

When the candidate has satisfied the requirements of his consultative committee, the committee is dissolved. A member of the faculty, in whose field the topic of the dissertation falls, is then appointed to serve as the candidate's adviser on his dissertation and in his field of specialization, and to recommend him to the Dean for the final oral examination when, in his judgment, the candidate's dissertation is acceptable.

Not later than the date specified in the University calendar the candidate shall submit to the Dean of the School of Education four copies of his dissertation—one typewritten original and three legible and complete carbon copies, on official thesis paper—and also a typewritten summary of the dissertation consisting of not more than 2,500 words. Requirements regarding the form of the dissertation are stated in the general catalogue and additional information will be supplied by the Dean.

The successful candidate is required, at the time of the acceptance of the dissertation, to pay a fee to cover the expense of printing the summary.

#### THE FINAL EXAMINATION

At least three weeks before the degree is to be conferred the candidate must pass an oral examination on his dissertation and on his field of specialization before a committee of the Faculty appointed by the Dean, supplemented by two experts from outside the University appointed by the President. This examination is open to the public and all are privileged to question the candidate. The Dean, or a member of the Faculty designated by him, will preside at this examination.

#### READING CLINIC

To help children and adults with reading difficulties, the School of Education operates a diagnostic reading clinic. Children may be referred by principals, teachers, or parents. Adults may apply by telephone.



A complete diagnostic examination usually requires three sittings. When completed, a written report is given and a conference arranged at which disabilities are discussed in detail and suggestions for corrective work are outlined. The fee is \$20.00.

A complete diagnostic examination usually requires three sittings. When completed, a written report is given and a conference arranged at which disabilities are discussed in detail and suggestions for corrective work are outlined. The fee is \$20.00.



## FEES AND FINANCIAL REGULATIONS

By authorization of the Board of Trustees, the following fees have been adopted:

### TUITION FEES

For each credit hour for which the student registers (except work taken by a candidate for a Doctor's degree).....	\$12.00
For the degree of Doctor of Education	
For work leading to and including the general examination.....	360.00
For work leading to and including the final examination.....	360.00

### ADDITIONAL COURSE FEES

In certain courses additional fees, such as laboratory and material fees, are charged as indicated in the course descriptions. These fees are charged by the term and, unless otherwise indicated, may be defrayed in three payments when the tuition is paid in this manner. Breakage of apparatus is charged against the individual student. When breakage is in excess of the normal amount provided for in the laboratory fee the individual student will be required to pay such additional charges as are determined by the department concerned.

GRADUATION FEE .....	20.00
FEE FOR BINDING MASTER'S THESIS.....	4.00
FEE FOR PRINTING AND FILING SUMMARY OF DOCTORAL DISSERTATION..	50.00

### SPECIAL FEES

Application fee, charged all applicants for admission, non-refundable	3.00
Late-registration fee, charged each student who fails to register within the designated period.....	5.00
Withdrawal fee, charged each student who preregisters and withdraws prior to the regular registration.....	5.00
Service fee, charged each student for late payment of tuition (see "Payment of Fees") .....	1.00
Reinstatement fee, charged each student who is reinstated after suspension for delinquency in fees.....	5.00
Residence fee, charged each student wishing to maintain "in residence" status during any term of absence from the University or after completion of tuition requirements.....	12.00
For special physical examination.....	2.00
For examinations to qualify for advanced standing and for each special examination .....	5.00
For diagnostic reading clinic.....	20.00
Laboratory checkout fee, charged all students in chemistry and pharmacy courses who fail to check out of the laboratory by the time set by the instructor.....	2.00

Registration in the University entitles each student to the following University privileges: (1) the issuance of three certified transcripts of record, if and when desired; (2) the services of the Employment Office; (3) the use of University library facilities, except as otherwise desig-



nated; (4) gymnasium privileges; (5) admission to all athletic contests, unless otherwise specified; (6) subscription to the *University Hatchet*, the student newspaper; (7) admission to University debates; (8) medical attention and hospital services as described in the General Catalogue. These privileges, however, with the exception of the issuance of transcripts, terminate, and a student is no longer in residence, when he withdraws or is dismissed from the University.

#### PAYMENT OF FEES

All fees are payable at the Office of the Cashier, 725 Twenty-first Street, NW. No student is permitted to complete registration or to attend classes until all fees are paid. Fees for each term are due and payable in advance at the time of registration.

In exceptional cases, subject to the approval of the Comptroller, the student may sign a contract for term charges, except for fees payable in advance, permitting payments as follows:

*Fall Term.*—One third at the time of registration; one third on November 3; one third on December 4.

*Winter Term.*—One third at the time of registration; one third on March 3; one third on April 3.

A student who fails to meet payments when due, but who pays his fees on or before the tenth day of the month in which payment is due, is charged a service fee of \$1. A student who fails to meet payments by the tenth day of the month in which payment is due will be automatically suspended and may not attend classes until he has been officially reinstated and has paid all accrued fees and a reinstatement fee of \$5.

A suspended student may not be reinstated for the term after two weeks from the date of suspension. Applications for reinstatement are to be made to the dean.

An auditor pays all fees chargeable to the student registered for credit except the late-registration fee.

#### WITHDRAWALS AND REFUNDS

Application for withdrawal from the University or for change in class schedule must be made in person or in writing to the dean. Notification to an instructor is not an acceptable notice.

In authorized withdrawals and changes in schedules, financial adjustments will be made as follows:

*Fall Term.*—Withdrawal dated on or before October 31, cancellation of two-thirds of tuition charges; withdrawal dated on or before November 30, cancellation of one-third of tuition charges. No refund or reduction will be allowed on a withdrawal dated subsequent to November 30.



*Winter Term.*—Withdrawal dated on or before February 28, cancellation of two-thirds of tuition charges; withdrawal dated on or before March 31, cancellation of one-third of tuition charges. No refund or reduction will be allowed on a withdrawal dated subsequent to March 31.

In no case will a refund be made of the first third of the total tuition charges unless the registration is in advance and the course is dropped before the regular registration day. In this case a withdrawal fee of \$5 is charged and tuition fees refunded. In no case will tuition be reduced or refunded because of nonattendance upon classes.

Payment applies only to the term for which a registration charge is incurred and in no case will this payment be credited to another term.

Any student in chemistry who fails to check out of the laboratory on or before the date set by the instructor, unless excused by the instructor, will be charged a checkout fee in the amount of \$2. A student who drops a course before the end of the term must check out of the laboratory at the next regular laboratory period.

Authorization to withdraw and certification for work done will not be given a student who has not a clear financial record.

All charges for courses dropped without the approval of the dean must be met by the student. Reporting the dropping of a course to an instructor does not effect its discontinuance.

#### NATIONAL SERVICE LEAVE OF ABSENCE FOR STUDENTS

A student who is called into the Armed Forces or who volunteers for service with the Armed Forces, upon application to the dean of his college, school, or division, will be granted "national service leave of absence" from the University under the following provisions:

1. The student must be in good financial standing when his service leave is approved.
2. A student granted service leave will receive incomplete grades in all courses for which he is registered. The student is encouraged to make arrangements with his instructors for completion of his work whenever possible under the Independent Study Plan.
3. A student granted service leave during a term will be credited with tuition payments made during that term prior to the granting of such leave, and upon the student's return to the University this financial credit will be applicable toward tuition for the courses for which he was registered.
4. Service leave continues effective during the first year following the termination of the student's connection with the Armed Forces. The



student may return to the University under the rules and regulations in effect at the time service leave was granted.

5. If any courses for which the student was registered at the time service leave was granted are not offered upon his return, he may substitute comparable courses with the approval of the instructor and the dean concerned. Tuition credit cannot be transferred to courses other than those for which the student was registered when service leave was granted except when courses are substituted as provided above.



## COURSES OF INSTRUCTION

### EXPLANATION OF COURSE NUMBERS

An odd number preceding the name of the course indicates that the course is offered in the fall term; and an even number, that it is offered in the winter term. The letter "x" following an odd course number (e.g., 295x) indicates that the course, normally offered in the fall term, is given in the winter term. The letter "x" following an even course number indicates that the course, normally offered in the winter term, is given in the fall term.

*First-group courses.*—Courses numbered from 1 to 100 are planned for students in the freshman and sophomore years. With the approval of the adviser and the dean, they may also be taken by juniors and seniors. In certain instances, they may be taken by graduate students to make up undergraduate deficiencies or as prerequisite to advanced courses, but they may not be credited toward a higher degree.

*Second-group courses.*—Courses numbered from 101 to 200 are planned for students in the junior and senior years. They may be credited toward higher degrees only when registration for graduate credit has been approved at the beginning of the course by the Dean of the School of Education and by the officer of instruction concerned, and when the completion of additional work has been certified by the officer of instruction.

*Third-group courses.*—Courses numbered from 201 to 300 are planned primarily for graduate students. They are open, with the approval of the officer of instruction to qualified seniors; they are not open to Junior College students or other undergraduates.

### INDICATION OF THE AMOUNT OF CREDIT

The number of credit hours given for the satisfactory completion of a course is indicated in parentheses after the name of the course. Thus, a year course giving three hours of credit each term is marked (3-3), and a term course giving three hours of credit is marked (3).

### DEPARTMENT OF EDUCATION

Courses offered by the Department of Education are of two types: those designed for the preservice education of candidates and those planned for the inservice education of teachers.

Preservice courses devote two fifty-minute periods a week to lecture and discussion supplemented by a minimum of two hours a week of related field work. A clinical approach to the study of educational



problems is used, lectures and discussions revolving around observed practices.

Inservice courses usually meet only once a week for a two-hour period. Class work is supplemented by extensive reading assignments, the preparation of reports, and field work. A student enrolled in one of these courses should plan to devote not less than seven hours a week, exclusive of class time, to the work of the course.

Ample opportunity is provided to study teaching or administrative problems of special interest. To enable students to consult with instructors regarding individual problems, a conference hour is scheduled immediately before or after the class period.

Only the courses designed to provide professional information and skills are listed below. For courses needed for general education or teaching field preparation, see the general catalogue. In addition to courses offered in the Department of Education a number of professional courses for teachers are offered in the departments of Psychology, Speech, and Statistics. These are listed below together with courses offered by the Department of Education.

The exact hour at which classes will be held is stated only for the fall term of 1949-50. Class hours for courses offered in a later term will be found in the Schedule of Classes for that term.

#### FIRST GROUP

##### Education A *Reading Clinic* Hilder and Staff

Diagnosis of reading difficulties; individual or group lessons without academic credit for alexia, dyslexia, and remedial cases. Fee: for diagnosis, \$20; for individual lesson, \$3; for group lesson, \$2.50.

##### Psychology 22 *Introduction to Educational Psychology* (3) Faith

Consideration of individual and group differences, adjustments, and the psychology of learning in relation to education and training. Morning. (Also offered 1950 summer term.)

Psychology 22x—same as Psychology 22, but offered fall term. Tues. and Thurs., 6:10 to 7:25 P.M.

##### Psychology 29 *Child Psychology* (3) Phillips

A genetic approach to the study of the child. Special emphasis is placed on the socialization process, learning, and the child's view of the world. Tues. and Thurs., 6:10 to 7:25 P.M. (Also offered 1950 summer term.)

Psychology 29x—same as Psychology 29, but offered winter term. Morning.

##### Statistics 53 *Introduction to Statistics in Psychology and Education* (3) Weida and Staff

Sources of data, tabulation, charts and graphs, averages, dispersion, quartiles and percentiles, raw scores and derived scores, profiles, norms and their use, frequency distributions, intelligence and other quotients, reliability and validity of tests, normal curve, correlation, elementary sampling, statistical



error, limitations of statistics. Prerequisite: one entrance unit in algebra. Laboratory fee, \$5. Lecture—section A: Tues. and Thurs., 10:10 A.M.; section B: Mon. and Wed., 7:10 P.M.; laboratory—section M: Mon., 4:10 to 5:50 P.M.; section N: Wed., 4:10 to 5:50 P.M.; section P: Thurs., 4:10 to 5:50 P.M.; section Q: Wed., 8:10 to 9:50 P.M.

Statistics 53x—same as Statistics 53, but offered winter term. Morning and evening sections.

## SECOND GROUP

### Statistics 104 *Statistics in Psychology and Education* (3) Weida

Advanced study of correlation and frequency analysis, sampling theory, factor analysis, and applications to specific problems utilizing case method of study insofar as possible. Original work is required of each student. Prerequisite: Statistics 53. Laboratory fee, \$5.

### Education 109-10 *Learning and Teaching* (3-3) Ruffner

For the general student as well as the prospective teacher. Fall term: nature of learning and teaching approached through the study of actual classroom situations. Winter term: the principles and practices of good teaching. Section A: Wed. and Fri., 10:10 A.M.; section B: Wed. and Fri., 6:10 P.M.; field work (2 hours) to be arranged. (Also offered 1950 summer term.)

### Education 111-12 *Elementary School Curriculum* (3-3)

Fall term: language skills—reading, writing, spelling, speaking, listening. Winter term: natural and social sciences, arithmetic. Summer term 1950.

### Education 113 *Elementary School Art* (3)

Materials and methods. Tues. and Thurs., 5:10 P.M.

### Education 114 *Elementary School Music* (3)

Materials and methods. Tues. and Thurs., 5:10 P.M.

### Education 121-22 *Society and the School* (3-3) Jarman, Burnett

For the general student as well as the prospective teacher. Fall term: the local, national, and international roles of education; cooperation of the school with other community agencies. Winter term: organization and operation of schools; principles and functions. Section A: Tues. and Thurs., 10:10 A.M.; section B: Tues. and Thurs., 6:10 P.M.; section C: winter term only, for those in elementary curriculum, Tues. and Thurs., 10:10 A.M.; field work (2 hours) to be arranged. (Also offered 1950 summer term.)

### Psychology 121 *Educational Psychology* (3) Faith

Advanced course in Educational Psychology. Open each term on the individual study plan to a limited number of students. Time to be arranged.

### Education 123-24 *Reading Problems* (3-3) Hilder

A clinical approach to reading difficulties on elementary and secondary school levels. Sat., 9:10 to 11:00 A.M.



Psychology 129 *Introduction to Counseling and Guidance* (3) Dreese

A survey of the basic principles, techniques, and procedures as applied to vocational, educational, and personal counseling. Tues., 6:10 to 8:50 P.M.

Education 131 *Common Teaching Skills* (3) Root

Course, unit, and lesson planning; homeroom procedures; discipline, clerical routines; activity sponsorship; committee procedures; public relations duties. Section A: Mon., Wed., and Fri., 5:10 P.M.; section B: Mon., Wed., and Fri., 2:10 P.M.; field work (2 hours), to be arranged.

Psychology 131 *Psychological Tests* (3) Hunt

A survey of psychological tests and their more common uses in business, industry, government, law, medicine, and education. Material fee, \$2.25. Mon., Wed., and Fri., 11:10 A.M. (Also offered 1950 summer term.)

Psychology 131x—same as Psychology 131, but offered winter term. Evening.

†Education 133-34 *Observation and Practice Teaching* (3-3) Root

Education 134, practice-teaching fee, \$8 a credit hour. Admission by permission of the instructor. (Also offered 1950 summer term.) Time to be arranged individually.

Psychology 144 *Personnel Psychology* (3) Mosé

The applications of psychology to personnel work in education, business, industry, and government. Afternoon. (Also offered 1950 summer term.)

Psychology 144x—same as Psychology 144 but offered fall term. Mon. and Wed., 5:45 to 7:00 P.M.

#### SPECIAL METHODS COURSES

To be elected in the senior year after substantial preparation in the teaching fields concerned. Course requirements and hours of credit vary with license requirements. Practices of successful teachers are studied and actual teaching content as found in current texts and courses of study is reviewed.

Education 136 *Teaching English* (2 to 4) Lumsden

Tues., 7:35 to 9:35 P.M.; field work (2 hours) to be arranged.

Education 138 *Teaching Social Studies* (2 to 4) Root

Mon., 7:10 to 9:10 P.M.; field work (2 hours) to be arranged.

Education 140 *Teaching Mathematics* (2) Weida

Mon., 5:10 to 7:00 P.M.

Education 141-42 *Teaching Art* (3-3) Goodwin

Sat., 9:10 to 11:00 A.M.; field work (2 hours) to be arranged.

Education 144 *Teaching Science* (2 to 4) Rumbough

Wed., 5:10 to 7:00 P.M.; field work (2 hours) to be arranged.



Education 146 *Teaching Foreign Languages* Doyle, Keating  
(2 to 4)  
Tues., 5:10 to 7:00 P.M.

Education 148 *Teaching Home Economics* (2) Kirkpatrick  
Time to be arranged.

Education 150 *Teaching Secretarial Studies* (2)  
Time to be arranged.

Speech 175-76 *Speech Correction* (3-3) Pettit  
A study of the causes of the disorders of speech with emphasis on methods in diagnosis and treatment of defective speech. Prerequisite: Speech 11 and 101, or permission of the instructor. Laboratory fee: \$3 a term. 175: Mon., Wed., and Fri., 5:10 P.M.

### THIRD GROUP

Education 205-6 *The Curriculum* (3-3) Burnett  
General principles and practices of curricular development; modern trends and procedures of improvement; group consideration of student problems. Sat., 11:10 A.M. to 1:00 P.M.

Education 209-10 *Child Growth and Development* Eaves  
(3-3)  
Basic factors in human growth and development and their relation to learning and teaching. Related practical experience in studying children with class analyses of procedures and results. Wed., 7:10 to 9:10 P.M. (Also offered 1950 summer term—Education 209 (3).)

Education 211X *Evaluation in Education* (3) Ruffner  
Nature, functions, and techniques. Thurs., 7:35 to 9:35 P.M. (Also offered 1950 summer term.)

Education 213-14 *History of Education* (3-3) Jarman  
Fall term: the European backgrounds of American education. Winter term: the evolution of the American school system. Tues., 7:35 to 9:35 P.M.

Education 217-18 *Contemporary Problems in Education* Jarman  
(3-3)  
Fall term: designed to help students formulate a personal philosophy of education. Winter term: a study of the forces that shape the policies and offerings of the school. Mon., 7:10 to 9:10 P.M.

Education 221-22 *Seminar: Early Childhood Education* Little  
(3-3)  
Fall term: home backgrounds, nursery school and kindergarten situations. Winter term: primary grades. Fri., 7:10 to 9:10 P.M.



- Psychology 223 *Seminar: Learning* (3) B. H. Fox  
Covers theories of learning. Tues., 7:35 to 9:25 P.M. (Also offered 1950 summer term.)
- Education 225-26 *Seminar: Elementary Education in the Intermediate Grades* (3-3) Little  
A comprehensive study of the major problems of the intermediate grades. Summer term 1950.
- Psychology 225 *Seminar: Mental Hygiene* (3) B. H. Fox  
A survey of the recent literature in social psychology and anthropology as they relate to the impact of society on the mental hygiene of the individual. Individual mental health problems are viewed in terms of the social context in which they occur and are treated. Sat., 10:10 to 12:00 A.M. (Also offered 1950 summer term.)
- Education 227-28 *Elementary Education* (3-3) Burnett  
Fall term: discussion of fundamental issues in the light of their historical development, parallel situations in other countries, and current proposed solutions. Winter term: relationships of developments in each instructional area to the fundamental issues. Sat., 9:10 to 11:00 A.M.
- Psychology 227 *Seminar: Counseling and Guidance* (3) Dreese  
Recent developments and current problems in vocational, educational, and personal guidance in various types of agencies with particular reference to education. Prerequisite: educational or psychological measurements. Thurs., 7:35 to 9:25 P.M. (Also offered 1950 summer term.)
- Psychology 228 *Seminar: Techniques of Counseling* (3) Dreese  
Specific types of vocational, educational, and personal counseling problems approached through the case method. Prerequisite: recent previous course in counseling and guidance and familiarity with individual analysis methods. Evening., (Also offered 1950 summer term.)
- Psychology 229 *Seminar: Occupational and Educational Information* (3) Davis  
Designed to acquaint vocational and educational counselors with the basic occupational and educational information necessary in counseling. Sources of data and techniques of collecting, analyzing, and disseminating for purposes of guidance. Wed., 8:10 to 10:00 P.M.
- Education 230x *Administration of Elementary Education* (3) Burnett  
The principal as a school and community leader. Problems of supervision, course of study development, parent relations. Tues., 7:35 to 9:35 P.M.
- Education 231 *Secondary School Classroom Procedures* (3) Bish, Root  
Survey of current classroom practices with particular attention to teaching aids; reviews of recent literature. Tues., 7:35 to 9:35 P.M. (Also offered in 1950 summer term.)



- Psychology 231 *Test Construction* (3)** Hunt  
The principles underlying test construction; statistical techniques in the construction, evaluation, and standardization of psychological, educational, and vocational tests. Prerequisite: a course in tests and measurement and a course in statistics. Tues., 7:35 to 9:35 P.M.
- Psychology 232 *Research: Test Construction* (3)** Hunt  
Individual projects of construction and evaluation of psychological, educational, or vocational tests. Prerequisite: Psychology 231. Open each term on an individual study plan to a small number of students by permission of the instructor. Time to be arranged.
- Education 233 *Audio-visual Education* (3)** Luecke  
Selection and use of audio-visual aids; measurement of materials and equipment. Material fee, \$5. Lecture (2 hours), laboratory (2 hours). Sat., 9:10 A.M. to 1:00 P.M. (Also offered 1950 summer term.)  
Education 233x—same as Education 233, but offered in the winter term. Saturday morning.
- Psychology 233 *Individual Psychological Testing* (3)** Phillips  
Instruction and practice in giving the Binet Test and the Wechsler-Bellevue Test. Emphasis is placed on testing children and adolescents. Prerequisite: an elementary course in tests and measurements. Material fee, \$2.25. Fri., 3:10 to 5:00 P.M. (Also offered 1950 summer term.)  
Psychology 233x—same as Psychology 233, but offered winter term. Afternoon.
- Education 247-48 *Vocational Education* (3-3)** Ruffner, Johnson  
Major issues, problems, and trends. Tues., 7:35 to 9:35 P.M.
- Education 251 *Guidance in Secondary Schools* (3)** Brougher  
Scope; needs; organization of the program; services to students, the instructional staff, and the administration; personnel needed for the program. Fri., 7:10 to 9:10 P.M.. (Also offered 1950 summer term.)
- Education 254 *The Junior High School* (3)** Bish, Root  
Purposes; organization; core programs; guidance; developing course of study; extra-classroom activities. Tues., 7:35 to 9:35 P.M. (Also offered 1950 summer term.)
- Education 255-56 *Secondary Education* (3-3)** Bish, Root  
Fall term: review of recent literature and practices; particular attention to *Education for All American Youth*, the recent report of the Educational Policies Commission, and *General Education in a Free Society*, Harvard Committee. Winter term: current problems in each of the subject-matter fields. Sat., 11:10 A.M. to 1:00 P.M. (Also offered 1950 summer term.)
- Education 259-60 *Secondary School Management* (3-3)** J. H. Fox  
Management planning, execution, and control; criteria of good management; construction of the master schedule; leadership problems incident to the development of new policies and program. Sat., 9:10 to 11:00 A.M.



- Education 263-64 *Employee Training* (3-3) Root  
Organization and administration of employee-training programs in accordance with operating needs; orientation, supervisory, and skills training; coordination of training with other personnel functions; evaluation of training. Field work is required. Thurs., 7:35 to 9:35 P.M.
- Education 271 *The American School System* (3) J. H. Fox  
Organization of public education; sources of school revenue; influences of national and state agencies; local administrative units; the chief legal controls; criteria of building administration; responsibilities of teachers. Wed., 7:10 to 9:10 P.M.
- Education 272 *The Teacher and School Supervision* (3) J. H. Fox  
Nature, organization, human relationships, and techniques. Wed., 7:10 to 9:10 P.M. (Also offered 1950 summer term.)
- Education 273-74 *Administration of a School System* (3-3) Alves, Early, Featherston  
A comprehensive survey of the management problems of a beginning superintendent; does not anticipate previous experience as a superintendent. Thurs., 7:35 to 9:35 P.M.
- Education 275 *School Finance* (3) Alves  
Educational financial theory, practice, and control, including methods of financing. Fri., 7:10 to 9:10 P.M. (Not offered in 1950-51.)
- Education 276 *Seminar: Public Relations in School Administration* (3) J. H. Fox  
Purposes; gathering materials; disseminating agencies; publicity media; public participation in policy-making. (Not offered in 1950-51.)
- Education 278 *School Law* (3) Remmlein  
Sources and scope of school law; legal rights and responsibilities of teachers, pupils, and taxpayers. Other legal problems of major interest to the group. (Not offered in 1950-51.)
- Education 279-80 *Adult Education* (3-3) Ruffner  
Fall term: nature, extent, and organization of programs in adult education. Winter term: interest, needs, and capacities of adult learners; techniques employed in motivating and directing learning activities. Mon., 7:10 to 9:10 P.M. (Also offered 1950 summer term—Education 279 (3).)
- Education 287-88 *Clinical Study of Reading Problems* (3-3) Hilder  
For advanced students. Diagnostic work under supervision in the Reading Clinic. Admission by permission of the instructor. Sat., 11:10 A.M. to 1:00 P.M.
- Education 291 *Planning the School Plant* (3) Hamon  
Selection of sites; evaluation of existing buildings; utilization of present facilities; adaptation to curricular needs; building, operation, and maintenance problems. (Not offered in 1950-51.)



Education 293-94 *Research* (3-3) The Staff  
Individual research under the guidance of a member of the staff. Program and conferences arranged with an instructor.

Education 295 *Educational Research Methods and Procedures* (3) J. H. Fox  
Required of all Master of Arts candidates following Plan 2. Knowledge of elementary statistics required. Tues. and Thurs., 6:10 P.M. (Also offered 1950 summer term.)  
Education 295x—same as Education 295, but offered winter term. Fri., 5:10 to 7:00 P.M.

Education 297 *Reading in Education* (1) The Staff  
To assist those preparing for the comprehensive examination. No credit toward degree requirements. Wed., 5:10 P.M. (Also offered 1950 summer term.)  
Education 297x—same as Education 297, but offered winter term. Wed., 5:10 P.M.

Education 299-300 *Thesis* (3-3) The Staff  
Required of all Master of Arts candidates following Plan 1. Time to be arranged. (Also offered 1950 summer term.)

#### DEPARTMENTS OF PHYSICAL EDUCATION

The following courses are offered by the Department of Physical Education for Men and the Department of Physical Education for Women. Whenever possible the departments offer lecture courses jointly.

#### FIRST GROUP

43-44 *Techniques of Physical Education Motor Activities* (2-2) The Staff  
Fundamental skills, rules, and organization. Locker and towel fee,\* \$2 a term. Tues. and Thurs., 1:10 to 3:00 P.M.

45-46 *Methods of Teaching Physical Education Activities for Secondary Schools I* (2-2) The Staff  
Methods and materials for teaching (1) recreational dance—folk, square, and social dance; (2) individual and dual sports—tennis, golf, archery, swimming, badminton, bowling. Locker and towel fee,\* \$2 a term. Mon. and Wed., 1:10 to 3:00 P.M.

47 *Introduction to Physical Education* (2) Myers  
An orientation course presenting the problems of physical education, vocational analysis, scientific foundations, and scope of field. Tues. and Thurs., 11:10 A.M.

\*The locker and towel fee is required for registration in one or more of the activity courses.



- 48 *Introduction to Recreation* (2) Myers  
The role of recreation in modern living; current practices in community recreation work; standards of training, experience, and salary; types of leadership. Time to be arranged.
- 49 *Human Anatomy* (3) Tate  
The structure of the human body. Basic course for physical education majors. Also open to both men and women not majoring in physical education. Prerequisite: Biology 1-2 or Zoology 1-2. Mon., Wed., and Fri., 9:10 A.M.
- 50 *Kinesiology* (3) Tate  
A study of the anatomical mechanism of movement, analysis of the action of muscles in physical education activities. Prerequisite: an approved course in anatomy. Morning.
- 51-52 *Physical Education in the Elementary School* (2-2) Burtner  
Physical growth and development of the child and adolescent. Survey of age characteristics and organization of physical education activities for the various age levels in elementary school, playground, and settlement house programs. Methods and materials of tumbling, games, rhythms, and self-testing activities. Tues. and Thurs., 9:10 A.M.
- 58 *First Aid and Care of Athletic Injuries* (2) Myers, Lawrence  
Prevention and emergency care of injuries of all types, with special reference to first aid, bandaging, and massage. A practical course. Prerequisite: Biology 1-2 or Zoology 1-2. Afternoon.

## SECOND GROUP

- 103 *History and Principles of Physical Education* (3) Atwell  
Survey of history as it relates to contemporary physical education. Study of aims, objectives, and philosophy of physical education. Mon., Wed., and Fri., 9:10 A.M.
- 105-6 *Corrective Physical Education and Physical Examinations* (3-3) Lawrence  
Cause and correction of faulty body mechanics, physical examination methods for the diagnosis of postural defects, prescription of exercises and program adaptation. Prerequisite: Biology 1-2 or Zoology 1-2. Mon., Wed., and Fri., 10:10 A.M.
- 109-10 *Leadership Organization in the Intramural Program* (2-2) Krupa  
Principles of administration, organization, and supervision of intramural activities in the physical education program of the junior high school, senior high school, and college. Tues. and Thurs., 12:10 P.M.



- 113-14 *Methods and Practice in Teaching Physical Education Activities* (2-2) The Staff  
Principles and methods applied to learning and teaching physical education activities. Supervised laboratory. Time to be arranged.
- 115-16 *Methods of Teaching Physical Education Activities for Secondary Schools II* (2-2) The Staff  
Locker and towel fee,\* \$2 a term. Section A (women): modern dance; team sports—field hockey, basketball, softball, soccer, speedball, volleyball. Afternoon. Section A—(women): Time to be arranged; Section B (men): Sports—football, basketball, baseball, track and field. Mon. and Wed., 1:30 to 3:00 P.M.
- 121 *School and Community Health Programs* (3) Lawrence  
Health services, healthful environment, health instruction, sources of material for general health knowledge. Prerequisite: Biology 1-2 or Zoology 1-2. Mon., Wed., and Fri., 11:10 A.M.
- 122 *Methods and Materials of Health Education* (3)  
Organization and presentation of health materials for each age level. Prerequisite: Biology 1-2 or Zoology 1-2. Morning.
- 131 *Tests and Measurements in Physical Education* (3) Atwell  
Critical survey of tests in physical activities, methods of test construction, elementary statistics. Tues. and Thurs., 8:30 to 10:00 A.M.
- 132 *Camp Leadership* (1)  
Survey course in camp counseling. Afternoon.
- 133-34 *Observation and Practice Teaching* (3-3) Atwell, Myers  
Assignments are made to schools in Washington and the vicinity. Practice teaching fee, \$8 a credit hour. Time to be arranged.
- 136 *Survey of Dance History and Dance Forms* (3) Burtner  
The development of dance from primitive ritual to present day recreational and art forms of the dance. Includes ethnologic dance, practice and discussion of fundamental movement techniques and composition. Evening.
- 138 *Organization and Administration of Physical Education* (3) Atwell, Myers  
Organization and administration of physical education programs in elementary and secondary schools and in colleges. Study of plants, fields, equipment, and programs. Morning.
- 151-52 *Group Leadership Activities I* (3-3)  
Fall term; groups and their significance, group work principles and methods, professional and volunteer leaders, organization and development programs. Winter term: application to social-recreational activities. 1951-52 and alternate years, evening.

\* The locker and towel fee is required for registration in one or more of the activity courses.



- 153-54 *Group Leadership Activities II* (3-3) Foster  
 Fall term: organization and direction of physical recreation programs.  
 Winter term: organization and direction of special recreational activities, such as arts and crafts, dramatics, group singing, and nature walks. 1950-51 and alternate years, Tues., 7:35 to 9:35 P.M.
- 161 *Community Organization for Recreation* (3) Brightbill  
 Resources, principles, and methods in organizing community recreation services. Thurs., 7:35 to 9:35 P.M.
- 162 *Administration and Supervision of Recreation* (3) Brightbill  
 Factors and problems in administering recreation including surveys, legislation, program, area, facilities, leadership, finance, and public relations. Evening.

## THIRD GROUP

- 211 *Problems in Physical Education* (3) Morgan  
 For experienced teachers. Organization, supervision, and curriculum problems growing out of current issues; program planning policies; competition. 1950-51 and alternate years, Wed., 7:35 to 9:35 P.M.
- 220 *Problems in Health Education* (3) Kilander, Maxwell  
 Health needs; policies and program planning; use of community resources; promising practices in the field. 1950-51 and alternate years, evening.
- 231 *Evaluation in Physical Education* (3) Phillips  
 Planning the evaluation program; review of outcomes; analysis of tests and standards; administration and interpretation of tests; guidance. 1951-52 and alternate years, evening.
- 240 *Physical Education for the Atypical* (3) Morgan  
 Adaptations of activities to meet the special needs of students with physical disabilities resulting from such conditions as postural deviations, cardiac irregularities, operations, and poliomyelitis. 1951-52 and alternate years, evening.

## SCHEDULE OF EVENING AND SATURDAY CLASSES

## FALL TERM 1950-51

Monday Evening 7:10 to 9:10

Education 217 Contemporary Problems in Education  
 Education 279 Adult Education

Tuesday Evening 7:35 to 9:35

Psychology 129 Introduction to Counseling and Guidance (T 6:10-8:50)  
 Physical Education 153 Group Leadership Activities  
 Education 213 History of Education  
 Psychology 223 Seminar: Learning  
 Education 230x Administration of Elementary Education  
 Education 231 Secondary School Classroom Procedures  
 Psychology 231 Test Construction  
 Education 247 Vocational Education



Wednesday Evening 7:10 to 9:10

Education 209 Child Growth and Development

Education 271 The American School System

Wednesday Evening 7:35 to 9:35

Physical Education 211 Problems in Physical Education

Thursday Evening 7:35 to 9:35

Psychology 227 Seminar: Counseling and Guidance

Education 263 Employee Training

Education 273 Administration of a School System

Friday Evening 7:10 to 9:10

Education 221 Seminar: Early Childhood Education

Psychology 229 Seminar: Occupational and Educational Information

Education 251 Guidance in Secondary Schools

Saturday Morning 9:10 to 11:00

Education 123 Reading Problems

Education 141 Teaching Art

Education 227 Elementary Education

Education 233 Audio-visual Education (lecture)

Education 259 Secondary School Management

Saturday Morning 10:10 to 12:00

Psychology 225 Seminar: Mental Hygiene

Saturday Morning 11:10 to 1:00

Education 205 The Curriculum

Education 233 Audio-visual Education (laboratory)

Education 255 Secondary Education

Education 287 Clinical Study of Reading Problems

WINTER TERM 1950-51

Monday Evening 5:10 to 7:00

Education 140 Teaching Mathematics

Monday Evening 7:10 to 9:10

Education 138 Teaching Social Studies

Education 218 Contemporary Problems in Education

Education 280 Adult Education

Tuesday Evening 5:10 to 7:00

Education 146 Teaching Foreign Languages

Tuesday Evening 7:35 to 9:35

Education 136 Teaching English

Physical Education 154 Group Leadership Activities

Education 214 History of Education

Education 248 Vocational Education

Education 254 The Junior High School

Wednesday Evening 5:10 to 7:00

Education 144 Teaching Science



## Wednesday Evening 7:10 to 9:10

Education 210 Child Growth and Development

Education 272 The Teacher and School Supervision

## Thursday Evening 7:35 to 9:35

Education 211x Evaluation in Education

Education 264 Employee Training

Education 274 Administration of a School System

## Friday Evening 5:10 to 7:00

Education 295x Educational Research Methods and Procedures

## Friday Evening 7:10 to 9:10

Education 222 Seminar: Early Childhood Education

## Saturday Morning 9:10 to 11:00

Education 124 Reading Problems

Education 142 Teaching Art

Education 228 Elementary Education

Education 233x Audio-visual Education (lecture)

Education 260 Secondary School Management

## Saturday Morning 11:10 to 1:00

Education 206 The Curriculum

Education 233x Audio-visual Education (laboratory)

Education 256 Secondary Education

Education 288 Clinical Study of Reading Problems



Jones, Compton	D.C.	Polovoy, Albert Bernard	Md.
Kane, Frank Michael	Pa.	Reagan, Ralph Clifford	Tenn.
Kaplan, Bertram W.	N.Y.	Reynolds, Floyd Willmont	D.C.
Kelley, James John Joseph	Va.	Richardson, Henry Ansley	Va.
Kitagawa, Arthur Saburo	Calif.	Rozzelle, Frederick Russell	Va.
Kittle, John Lewis	Miss.	Runkle, Denton William	Va.
Korostoff, Bernhard	N.Y.	Russell, James Miller	D.C.
Lango, Alphonse James	Mass.	Schmier, Hilda Frieda	Md.
Leckband, Paul	Iowa	Schnapp, Carl Bernard	N.Y.
Linchuck, Stanley Martin	D.C.	Selkowitz, Lawrence Emanuel	Mass.
Lind, Robert Neal	Va.	Shanks, Oscar Eugene, Jr.	Md.
Lipton, Samuel Wayne	D.C.	Silverman, Norman	Md.
Long, Charles William	Md.	Snyder, Lucille Murphy	D.C.
Maire, Cyril Emil, Jr.	Md.	Sowers, Robert Hauer	Md.
(With distinction)		Steininger, Eugene Beachel	Pa.
Marzo, Floyd Augustus	D.C.	Stevas, Alexander Louis	Pa.
Matlon, Frank C.	Minn.	Stone, Bryce Douglas, Jr.	Tenn.
McCutchen, Sara Kennedy	S.C.	Stovall, Dorothy Ruth	D.C.
McGurrin, James Joseph	Va.	Svasti, Yudhithira	Siam
McKeon, Alfred Jerome	Va.	Swanston, Charles William	Va.
Meyrowitz, Leon	Md.	Swenson, Dale Abbott	Utah
Miller, Richard Eugene	D.C.	Tan, Pai-Men	China
Moore, Jesse Lee	D.C.	Tanneberger, Walter Samuel Herman	Va.
Nadel, Sidney	D.C.	Titone, Charles F.	N.Y.
Nelson, Robert Ferdinand	Mich.	Tuckman, Charles William	N.Y.
Nemes, Michael Stephen	N.Y.	Unzicker, Roy Kenneth	Va.
Neuhauser, Charles William II	D.C.	Van Briggie, Robert Dallas	Mo.
Noble, Sheldon Allen	N.Y.	Walsten, Carl John Edward	Va.
Olson, Richard Lionel	Conn.	Watkins, James Edward	Md.
Owen, George Morgan	D.C.	Weldy, Pauline	Ohio
Paci, Iris Mildred Bishop	Mo.	Wilson, Paul Randolph	D.C.
Pape, Robert Bruce	N.Y.	Wojtkowiak, Raymond Alfred	N.Y.
Parker, George Alton	Va.	Wright, Carney Willis	Tenn.
Phillips, Frederick David	D.C.	Yanagi, Wallace Tadao	Hawaii
Pierce, Henry Maurice	Va.		

## FEBRUARY 22, 1950

Abel, Edward	Mass.	Harmstone, Richard Channing	D.C.
Alvis, Oscar Roald	Va.	(With distinction)	
Baker, Charles Clare	Calif.	Henretta, David Howard	W.Va.
Baloga, Aloys Joseph	Pa.	Hoke, John Ray	Md.
Barnett, Charles Maxwell	Colo.	Hollingsworth, William Leon	Miss.
Barson, David	D.C.	Hopper, Thomas Bradford, Jr.	D.C.
Bartelloni, Henry John	Mass.	Houser, Herbert Harold	D.C.
Barwick, Joel Richard	Md.	Hudson, Robert Ray, Jr.	D.C.
Berg, Karl Joseph	D.C.	(With distinction—Special honors in	
Bjorklund, Otto Edward	Minn.	Accounting)	
Boyer, James Orval	Pa.	Irving, George Timothy	Iowa
Burke, John Grant	Va.	Jeffers, John Cordell	Va.
Clagett, Marshall Dement	D.C.	Kalter, Arthur Martin	N.J.
Clifford, Marvin Butler	Tenn.	Kerr, Graham Stickley	D.C.
Cole, Charles Herbert	Ohio	King, Phillip Miskell	N.C.
Dalonas, John	D.C.	Kirchner, Theodore Edmond	Va.
Dunn, Eugene Francis	S.D.	Kolker, Irvin	D.C.
Ellis, Calvin Warren	Ark.	Kowalski, Fred Herman	Conn.
Estanich, Joseph Anthony	Pa.	Krikorian, Garo	N.J.
Eynon, Lee Ellen	Va.	(With distinction)	
Faustman, Donald Milton	Va.	Lancaster, Blake Paul	Md.
Fertil, Dale Ray	Okla.	Leonard, Eugene Anthony	Va.
(With distinction)		Levin, Henry Max	D.C.
Fetterolf, Wallace Kermit	Pa.	Liberty, Cyril Jean	D.C.
Fleishman, Irving	D.C.	Lombardi, Reilly Robert	Ohio
Fletcher, Lloyd Lee	Fla.	Lynch, Marion Paul	D.C.
Fortinberry, George Kellie, Jr.	La.	Lynn, Bernard	D.C.
Fraser, Joseph Drew	D.C.	Malstrom, Robert Andrew	Mich.
Girton, Dale Rhoads	Pa.	Mandjuris, Andrew Anthony	Md.
Glassman, Gerald John	N.J.	Marcuse, Ernest	D.C.
Goldberg, Seymour	N.Y.	Matson, Richard Lee	Iowa
Grimani, Fred Joseph	Ohio	Miller, Bernard Leo	Mich.
Groves, Stanley Corley	D.C.	Miller, Keith High	Md.
Hadlock, Robert Lewis	Kans.	Minasian, George	N.Y.
Hammons, Att Wingfield, Jr.	Miss.	Monisera, Frank Daniel	N.J.



Morgan, Earl James	D.C.	Seybert, Harry David	D.C.
Morris, James Philip	N.C.	Shouse, William James	Ky.
Murphy, Robert Bernard	Wis.	Shundich, Peter	Pa.
Murray, Charles Ambrose	D.C.	Shurtleff, Miller Francis	Utah
Nishimura, George Kazuo	Hawaii	Smith, George Francis	D.C.
Nussbaum, George Leight	D.C.	Speaks, James Taylor	Ohio
O'Connor, Denis Patrick	N.Y.	Starns, Henry Carroll	Ky.
Palmer, Robert Edward	Calif.	Stigers, Donald William	Pa.
Patterson, William Amos	D.C.	Taylor, Francis Gordon	Ga.
Pence, Thomas Arthur	Va.	Thompson, Russell Claude, Jr.	Va.
Pericles, John	Pa.	Tozier, Alvin Ozro	Maine
Peter, Thomas Armistead II	Ohio	Warren, Howard Eanes	N.C.
Pocino, Vincent Angelo	N.J.	Wellington, Peretz	N.Y.
Remington, Joseph Joy	Ohio	Wolfarth, Carlton H.	Calif.
Rexroth, Clarence Dewey, Jr.	Pa.	Wolfe, Allen Lee	Mo.
Saylor, James Willis	D.C.	Wrobel, Joseph Norman	N.Y.
Schlemeier, Todd Edward	D.C.	Zembrzusi, Bruno John	Va.
Sekimura, Robert Sueo	Hawaii		
(With distinction)			

## MAY 31, 1950

Agersborg, James Albert Zahl	Ill.	Fuller, George Tucker Havemyer	D.C.
Allen, Jere Mullen	Pa.	Furman, Eugene Marvin	D.C.
Anderson, Helen Margaret	Md.	Furman, Larry Paul	D.C.
Andrews, Adeline Lovell	N.Y.	Gallagher, Bernard Francis	Va.
Andrews, Alphonse Michael	Mass.	Goldstein, Raymond Norman	D.C.
Armenaka, Rita-Irene Emmanuel	Greece	Gottsocho, Marie Helene	D.C.
Baber, James Clyde, Jr.	Ark.	Griffith, Shirley Ann	Canada
Baldwin, William Augustus	N.J.	Haight, Donald James	Va.
Begley, James Joseph	Pa.	Hall, James Granville, Jr.	Pa.
Berryman, Richard Blaxton, Jr.	Va.	Halvatzis, George	N.Y.
Billick, Eugene Wycoll, Jr.	D.C.	Hart, Nelson Perry	D.C.
Block, Frederick Laurence	N.Y.	Hartline, Robert Hind	D.C.
Bodden, Robert Clark	Fla.	(With distinction)	
Bolton, Vivian Reynolds	Pa.	Hayden, James Howard	Md.
Bonaminio, Alberto Domenico	Ohio	Hayes, Edward Matthew, Jr.	Maine
Bowman, Donald Hart	Tex.	Heckimian, M. J.	D.C.
Bramlette, Lee Clinton, Jr.	Tex.	Heller, Norman Harold	Md.
Bruce, William Averett	Okla.	Helzner, Manuel Louis	Mass.
Buck, Samuel Otho	D.C.	Heslen, Francis Charles	Ga.
(With distinction)		Hoffman, Howard Paul	N.Y.
Cerstvik, Milan Stephen	N.J.	Hook, George Oliver	Pa.
Clark, Edward Francis	N.J.	Hope, Robert Stocks	Va.
Clark, Frances Elizabeth	Va.	Howett, Jay Miller	N.J.
Cochran, Douglas McCord	Pa.	Inserni, Hiram Castillo	D.C.
Cohen, Sheldon Stanley	D.C.	James, Paul Marshall	D.C.
(Special honors in Accounting)		Janssen, William Joseph	N.Y.
Cohn, Leonard Earl	Md.	Johnson, Daniel Lynn	Md.
Coleman, George Melchiades, Jr.	D.C.	Jones, Beujamin Perry, Jr.	N.C.
Cragoe, John Henry	D.C.	Juárez, Joe Angel	Tex.
Cross, George Franklin, Jr.	D.C.	Kay, Marvin Leonard	D.C.
Cunningham, John Edward	Pa.	(With distinction)	
Curley, William Henry, Jr.	Ala.	Kershaw, John Aloysius	Pa.
Davis, Thomas Walker II	D.C.	Kahn, Mohammad Karamatulla	India
Del Grosso, Peter Albert	D.C.	Kingsbury, James Calvin	D.C.
Dirtadian, Helen	N.Y.	Klein, Joseph Sigmund	Md.
Dries, Edward Thomas	N.Y.	Koback, John Merriam	D.C.
Dunbar, John Paul	D.C.	Kriner, George Marion	N.J.
Dyck, William Donald	Kans.	Lacovara, Nicholas John	Md.
Edwall, Warren Emerson	Ill.	Lamphiear, Donald Edmond	Mo.
Eilers, James Paul	Md.	Lansing, Edward Watson	N.Y.
Embler, Ralph Edward	N.Y.	Levy, Lewis Edward	D.C.
Escobar, Blanca Gloria	Puerto Rico	Lewis, Edwin Newell, Jr.	Ill.
Eskes, James Norman	N.D.	Lilien, Charles Ernest	
Evans, John Penhallow, Jr.	D.C.	(With distinction)	
Eyster, Marguerite Butts	Va.	Long, Bacel Ellis	Va.
Fallin, Thomas Lee	Fla.	Luscomb, Charles Edward, Jr.	Conn.
Fisher, John Edward	Md.	Lynch, James, Jr.	D.C.
Fleisher, Eric Wilfrid	D.C.	Maggio, Paul Angelo	N.Y.
Freedman, Samuel Sumner	Conn.	Main, William Elmer	N.C.
Freese, Herbert Allan, Jr.	N.J.	Manico, Samuel Anthony	N.Y.
Fugate, John Paul	Ohio	Marclay, Elliott William	D.C.



Marks, Donald	N.Y.	Sebastian, Robert, Jr.	N.Y.
Martin, Ralph Edward	Maine	Sharp, Venda Venell	Va.
May, Barbara	D.C.	Shipp, Charles Kenneth	Va.
McBroom, Janice Koran	Kans.	Simon, Philip David	D.C.
McClure, Rex Clark	D.C.	Simon, Samuel Louis	Mass.
McCord, Franklin Otto	Iowa	Singer, Stanley Irvin	D.C.
McDermott, Jack Chipman	Tex.	Singer, Thomas Eric	Mass.
McKellips, Harold Gilman, Jr.	Calif.	(With distinction)	
McNiff, Philip Aloysius, Jr.	N.Y.	Skinner, Paul Artemus	Mass.
Meroney, Louis Roy	Tex.	Smith, Emery Peter	D.C.
Meyers, Daniel	N.Y.	Smith, Walker William	N.C.
Moren, Clarence Gill	N.Y.	Snyder, Charles Joseph	N.J.
Morris, John Michael	D.C.	Solter, Myron Woodrum	W.Va.
Naehar, Willis Earl	Pa.	Sorell, Gerald Paul	N.Y.
Nahme, Leonard Lee	D.C.	Spence, Charles E., Jr.	Idaho
Nargizian, Edward Arsen	N.Y.	Steece, Philip John	D.C.
Newkirk, Roy Francis	N.J.	Summers, Leonard	D.C.
Norman, Daniel Abraham	N.Y.	Sutherland, Julian Hoyt	Ohio
Northup, Graham Theodore	Va.	Szoka, Charles Eugene	Pa.
Odineal, Mary Louise	D.C.	Taylor, John Henry	Va.
O'Donnell, Francis Joseph	N.J.	Tong, Richard Koon Wong	Hawaii
Oftedal, Richard Halland	D.C.	Tully, Richard Edward	Ill.
Olsavsky, Steve Anthony	D.C.	VanSlyke, James Kermit	D.C.
Oparowski, Walter Emil	Mass.	Verta, James	N.J.
Orenstein, Marilyn Claire	N.Y.	Vogel, George Paulus	D.C.
Patterson, Phyllis Arnett	N.J.	Wagner, Harry Larue	D.C.
Pavia, Joaquin Antonio	N.Y.	Watkins, Henry Lee	Va.
Payne, Bruce McCollum	Va.	Watson, Beulah Elizabeth	Tex.
Perkins, Edgar Madison, Jr.	D.C.	Wells, Richard Glenn	Md.
Persson, Vernon James	Va.	White, Willis Graham	N.Y.
Pittman, Robert Julian	D.C.	Whitney, Joseph Roland	Mich.
Plugge, Kathryn	D.C.	B.S. 1945, University of Minnesota	
Pollock, Robert Emmett	Va.	Whittington, James Gordon, Jr.	N.C.
Porter, Neil Alfred	Mo.	Wilson, James Howie	Md.
Preston, Shirley Andrew	Md.	Witham, Robert Carey	Md.
Pugh, Lindley Coates, Jr.	Wis.	Wofford, Clarence Arnold	D.C.
Rhynsbarger, Robert Whitman	Va.	Wold, Henry Edward	D.C.
Rosakrans, Ruth Isabelle	Nebr.	Zanelli, Alfred	N.Y.
Rose, Amil Edward	W.Va.	Zasada, Richard Conrad	Va.
Ruff, Bryson LaMar	Pa.	Zorn, Otto Godfrey	N.Y.

## MASTER OF ARTS IN GOVERNMENT

NOVEMBER 11, 1949

Hashimi, Syed Mohammad Taqi	India	Moe, Donald Jacques	Minn.
A.B. 1937, A.M. 1939, A.M. 1941,		B.S. 1943, United States Naval	
Osmania University, India		Academy	
Helm, Herschel Horace, Jr.	Ky.	Russell, Harry Earle, Jr.	Mich.
A.B. 1948, The George Washington		A.B. 1947, University of Michigan	
University		Spear, Harvey Milton	Md.
Huang, Shing-Yi	D.C.	A.B. 1942, Brown University	
A.B. 1945, Central Institute of		LL.B. 1948, Harvard University	
Political Sciences		Wiseman, Ben Warren	W.Va.
Joe, Louisa Anna Maria Jozsi	Pa.	A.B. 1948, West Virginia University	
A.B. 1946, The George Washington		Woodward, Nancy Hanck	D.C.
University		A.B. 1948, The George Washington	
Liu, Ho	D.C.	University	
A.B. 1943, Lingnan University, China			

FEBRUARY 22, 1950

Bandle, Marion Karl	Utah	Davis, John Alexander, Jr.	Calif.
A.B. 1940, Brigham Young University		A.B. 1927, Marshall College	
Bartch, Carl Edward	Ohio	A.M. 1931, University of Michigan	
A.B. 1947, The George Washington		B.S. 1937, M.Ed. 1939, Ohio University	Ohio
University		Dolecki, Joseph Francis	
Bullockus, Theodore	D.C.	B.S. 1946, University of Alabama	China
A.B. in Govt. 1949, The George		Dow, Tsung-I	
Washington University		A.B. 1939, National Central University	



Freeman, Mary Blanche	N.C.	Musser, Ella Bitner	Ore.
A.B. 1944, University of North Carolina		B.S. 1923, University of Washington	
Gordon, Harold Raymond	Conn.	Northrup, Barbara Winifred	N.Y.
B.S. 1948, Teachers College of Connecticut		A.B. 1937, Elmira College	
Jackowski, Amil Walter	Mass.	Porter, Charles Williamson	La.
B.S. 1949, American International College		A.B. 1948, University of North Carolina	
Jenkins, Kempton Boyce	Va.	Reid, Richard Sterling	Va.
A.B. 1948, Bowling Green State University		A.B. 1943, Michigan State College	
McCloskey, Owen Thomas	Ohio	Rodgers, Edward Oscar	Ariz.
B.S. 1932, Ohio State University		B.S. 1944, University of Arizona	
McSoud, Clovis Fred	Okla.	Rovner, Louise Miriam	N.J.
A.B. 1949, The George Washington University		B.S. 1934, New Jersey College for Women	

## MAY 31, 1950

Baker, Harry LeRoy	Okla.	Laffey, Cyril Joseph	Md.
A.B. 1947, The George Washington University		A.B. 1949, The George Washington University	
Baumann, Robert Gustav	D.C.	Lanford, Horace Whalen, Jr.	Fla.
B.S. 1947, University of North Carolina		A.B. 1948, University of Georgia	
Beecher, John Joseph	Md.	Mansfield, Mae Helen	Ill.
A.B. 1939, University of Pennsylvania		A.B. 1949, The George Washington University	
Blake, William Lucius	D.C.	Meyering, Catherine Cecelia	N.Y.
A.B. 1949, The George Washington University		A.B. 1930, Seton Hill College	
Chew, Allen Frank	Pa.	Miller, Herman P.	N.Y.
A.B. 1949, The George Washington University		B.S. 1942, College of the City of New York	
Davis, Winston McStuart	Va.	Otto, Ingolf Helgi Elfried	Md.
B.S. 1947, Georgetown University		A.B. 1941, University of Cincinnati	
DeCamara, Richard Paul	Va.	Palta, Hardev Singh	India
A.B. 1949, The George Washington University		A.B. 1937, University of Punjab	
George, James Barron	Va.	Philipson, Bruce Glueck	D.C.
A.B. 1948, College of William and Mary		B.C.E. 1948, Catholic University of America	
Gillis, Harry Arthur, Jr.	Ohio	Pitchford, Leslie Lee, Jr.	Va.
A.B. 1942, Ohio Wesleyan University		A.B. 1948, Roanoke College	
Houser, Frederick Russell	Pa.	Tyson, Jean Carol	Fla.
A.B. 1948, The George Washington University		A.B. 1947, The George Washington University	
Kavruck, Samuel	N.Y.	Windheim, Sandoe	N.Y.
B.S. 1937, M.S. 1939, College of the City of New York		A.B. 1948, The George Washington University	

## THE GRADUATE COUNCIL

## DOCTOR OF PHILOSOPHY

NOVEMBER 11, 1949

Axilrod, Benjamin M.	Va.	Coberly, James Harold	W.Va.
B.E.E. 1933, M.S. 1934, University of Minnesota		A.B. 1933, A.M. 1938, The George Washington University	
Dissertation: "The Theory of Triple-Dipole Interaction"		Dissertation: "The Growth of Nationalism in American Literature, 1800 to 1815"	



FEBRUARY 22, 1950

Bacchus, Habeeb	British Guiana	Reverdin, Daniel Louis	Switzerland
B.S. 1947, Howard University		Diploma as Physicist 1946, Federal	
M.S. 1948, The George Washington University		Institute of Technology, Zurich, Switzerland	
Dissertation: "Functional Activity of the Zones of the Adrenal Cortex as Indicated by Steroid and Ascorbic Acid Histochemistry"		Dissertation: "Electron Optical Exploration of Space Charge in a Cut-off Magnetron"	

MAY 31, 1950

Friedlander, Harold	D.C.	Rasmussen, Wayne David	Va.
B.S. 1934, College of the City of New York		A.B. 1937, Montana State University	
A.M. 1939, The George Washington University		A.M. 1939, The George Washington University	
Dissertation: "Studies in Experimental Infections in Albino Rats and Mice"		Dissertation: "United States Plant Explorers in South America During the Nineteenth Century"	
Radomski, Jack London	Va.		
B.S. 1942, University of Wisconsin			
Dissertation: "The Metabolism and Pharmacological Actions of Lithium"			



## RECIPIENTS OF AWARDS

### SCHOLARSHIPS

1949-50

- The Byron Andrews Scholarship:* Ann Courtright
- The Emma K. Carr Scholarships:* Albert Morris DuGoff, Garo Krikorian, Charles Ernest Lilien, Samuel John Moffatt, Douglas Joseph Rykhus, Sam Michael Schreiber, Richard Gordon Scott, Julian Howard Singman, Howard Victor Stambler, Myron Bernard Zinn
- The Columbian Women Scholarships:* Norma Evenson, Mary Cecelia Griffiths, Elaine Langerman
- The Henry Harding Carter Scholarship:* Thomas Edward Mutchler, Jr.
- The Maria M. Carter Scholarship:* Solomon Efrem Barr
- The Isaac Davis Scholarship:* Judith Kutz
- The Charles Worthington Dorsey Scholarship:* Ruth Cooper Breslau
- The Robert Farnham Scholarship:* Natalie Anne Farwell
- The Elma Lewis Harvey Scholarship:* Dorothy Anne Weld
- The High School Scholarships:* Marion Baker, Nina Libertas Bencich, Eugenia Brandenburger, Jeanne Audrey Cleary, Bernice Elizabeth Cohen, John Hamilton Connaughton, Jr., Dorothy Virginia Dulin, Jean Nelson Edgar, Margaret Ann Faulds, Patricia Joanne Fenton, James Evans Forcum, Meredith Hale Gallup, Philip Arthur Gagan, Lou Ann Hall, Jean Doris Hartley, Marjorie Ann Hill, Edward William Hutmire, Joanne Stratford Hyde, Gladys Elizabeth James, Esther Lerner, Albert Lawrence Lloyd, Jr., Ellen Mae MacEwen, Chester Hayden McCall, Jr., James Forbes Merow, Mary Beth Koenig Paul, Richard Livingston Pentecost, Elinor Anne Peterson, Roy George Richmond, Robert Meldrum Riggs, Patricia Anne Saunders, Leon Joseph Schkolnick, Walter Conrad Scott, Joel Selbin, Elizabeth Anne Sheppard, Frank McNaulty Steadman, Jr., Nancy Reynolds Stevens, James Logan Stith, Harry Homer Thayer, Arnold Martin Toxen, Mary Margaret Trail, Edith Rita Venezky, Josephine Ann Walsh, Carl Weber Wernitz, Janet Wildman, Barbara Ann Worley
- The High School Discussion Conference Scholarships:* Margery Peperell Clifford, Gilbert Haring, Lois Mae Wentz
- The National League of Masonic Clubs Scholarship:* George Walton Buckmaster
- The Washington Chapter of The National Society of Arts and Letters Scholarship:* Harriett Virginia Hulfish
- The Newspaper Scholarships:*  
*The Evening Star:* Frederick Adolph de Luna, William Francis Fuchs, Bernard Arthur Goodrich  
*The Washington Post:* John Russell Wiggins, Jr., Frank Jones Woodard
- The Paul Pearson Scholarship:* Peter Van Allen
- The Benjamin T. Pitts Scholarship:* Jean Tully
- The David Spencer Scholarship:* Jean Agnes Miller
- The Student Activities Scholarships:* Raymond Harold Adler, Robert Thomas Allwine, Jerry Angel, Russell Edward Bailey, Urbino Joseph Barreira, Jack Edward Baumgartner, Clarence Edwin Becraft, Stanley Burak, David Francis



Burke, Charles Edward Butler, Frank Nicholas Cavallo, Arthur Joseph Cerra, Louis Ciarrocca, Jr., Bob Franklin Cilento, Franklin John Close, Frank Edward Continetti, Peter Paul Cordelli, Andrew Nathan Davis, Jr., John Rudolphe DeRagon, Clarence Prowell Drayer, Talbot William Dredge, Donald James Druckenmiller, Albert Morris DuGoff, Robert Lawrence Edenbaum, Edward Joseph Edgerton, James England, Joseph Anthony Famulatte, James Francis Fennell, James Joseph Feula, Thomas Stephen Flyzik, William Raymond Fox, Richard Howard Freed, Henry Waldo Goglin, John Robert Grinnell, Charles Anthony Gunner, Robert Leonard Gutt, Edward Lee Heflin, Kenneth Hirschfield, Howard Paul Hoffman, David Mitchell Howell, Edmund Crump Hughes, William Valentine James, Charles Clifford Jones, Fotis Nicholas Karousatos, Bernard William Kelly, Arthur Wallace Kennedy, Joseph Gerard Kennelly, Kenneth Jay Kern, James Frederick Kline, Aredis Vahan Kojoyian, Robert Marrero, Joseph Robert Masciarelli, Philip Aloysius McNiff, Samuel John Moffatt, William Alfred Neal, William Vincent O'Regan, Jr., Robert Leslie Parkinson, Chester Joseph Pietras, Seymour Plawsky, James Andrew Regan, Thomas Hooper Rielly, Frank Vincent Rizzuto, Frederick Clarence Samuelson, Kenneth Robert Samuelson, Walter Benedict Savage, Sam Michael Schreiber, George Edward Semkew, George Fleming Sengstack, John Michael Sestokas, Joseph James Shannon, William Miller Shaw, Alan Edward Sherr, Harvey Andrew Shipman, David Hawley Shiver, John Albert Shullenbarger, Lawrence Silverman, Michael Anthony Sileo, Jr., Leonard Small, Robert Allen Summers, William Leo Szanyi, John Thomas Tivnan, Jr., Robert Bernard Walbridge, David Lewis Waldron, George Walley, Jr., Denra Wallace Warner, Jr., Eugene Witkin, John Wesley Wofford, Jr., Jan Wojtowicz, Jr., John Joseph Yednock

*The Trustee Scholarships:* Viola Antoinette Andolfatto, Dorothy Lee

*The John Withington Scholarship:* Claudia Beechum Chapline

*The Ellen Woodhull Scholarship:* Judith Kutz

*The Xonta Scholarship:* Hwei Chen Lu

# PRIZES

1949-50

*Alpha Chi Sigma Freshman Awards in Chemistry:* Charles Martin Aaronson, Leon Joseph Skolnick, Samuel Peter Favarella

*Alpha Chi Sigma Senior Award in Chemistry:* Wilbert Joseph Robertson, Jr.

*Alpha Kappa Psi Award in Commerce:* Robert Ray Hudson, Jr.

*American Institute of Chemists Award in Chemistry:* Philip Lincoln Hanst

*Chi Omega Award in Social Sciences:* Jane Kathryn Terrell

*John Henry Cowles Awards in Government:* Charles Ernest Lilien, Thomas Eric Singer

*Dewitt Clinton Croissant Award for an essay on drama or the theater:* John Joseph Ford

*E. K. Cutter Award in English:* Marianna Beulah Amram

*Isaac Davis Awards in Public Speaking:* Charles Ernest Lilien, Jerome Stanley Wagshal, William Berkeley Ormond

*Delta Gamma Award to that woman member of the graduating class with the highest scholastic standing:* Betty Jane Brodnan

*Delta Zeta Award in Botany:* Gale Smedley Stringham

*Ellsworth Award in Patent Law:* Vernon Fredric Kalb



*Elton Award in Greek*: Margaret Abramitis Schreiner  
*Jesse Frederick Essary Award to that student who has given promise of sound citizenship and ability in "forthright reporting" in student publication*: Raymond Lowell Bancroft  
*Joshua Evans III Memorial Award to that man in the graduating class who has demonstrated his signal ability in the social and political sciences and who has given promise of the interpretation of that ability in good citizenship among his fellows*: Jerome Stanley Wagshal  
*Willie E. Fitch Award in Chemistry*: Wilbert Joseph Robertson  
*Alice Douglas Goddard Award in American Literature*: David Spencer Hoopes  
*Edward Carrington Goddard Award in French*: Paul Edmond Hebert  
*James Douglas Goddard Award in Pharmacy*: Leon Isadore Drapkin  
*Morgan Richardson Goddard Award in Commerce*: Julian Howard Singman  
*Gardiner G. Hubbard Memorial Award in United States History*: Richard Lebrecht  
*Kappa Kappa Gamma Award in Botany*: John Fisher Walton  
*John Bell Lerner Award to that member of the graduating class of the Law School with the highest scholastic standing*: Ruth Cooper Breslauer  
*John Ordronaux Award to that member of the graduating class of the School of Medicine with the highest scholastic standing*: Edwin Charles Wood  
*Phi Eta Sigma Award to the beginning male student attaining the highest scholastic average in his first full term of work*: George Fleming Sengstack  
*Phi Sigma Kappa Award to the winner in a freshman oratorical contest*: Martha Bothwell Trail  
*Ruggles Award in Mathematics*: Christopher Fitzsimon Eve  
*Sigma Kappa Award in Chemistry*: Leon Joseph Skolnick  
*James McBride Sterrett, Jr., Award in Physics*: Arnold Martin Toxen  
*Charles Clinton Swisher Award in History*: Harry Hall Taylor

## STUDENT ASSISTANTS

JUNE 1, 1949 TO JUNE 1, 1950

*Art*: Beth Koenig Paul, Gwendolyn Clare Ramsey  
*Biochemistry*: William James Canady, B.S.  
*Biology*: Edward Charles Connelly, Mary Catherine Dreka, Albert William Gannon, James Leon Gargus, Francis Austin Heckman, Stephen Cornwell Hopkins, Stanley Morton Kurtz, B.S., William Everett Maloney, B.S., John Robbins Mohler, Sam Schreiber, Emily Frances Upton, B.S.  
*Botany*: Robert Jack Downs, Edward HacsKaylo, A.B., George Albert Marlowe, Jr., B.S., Caroline Parkinson Miller, M.S., John Gilbert Palmer, Deems Norwood Wiggs, A.B.  
*Business Administration*: Harry Arthur Abramowitz, Ronald McKenzie Alexander, Edmund Brzozowski, William Pryor Bushmiera, Kenneth Seymour Colmen, Warren Emerson Edwall, Lloyd Lee Fletcher, Seymour Goldberg, Nelson Perry Hart, James John Joseph Kelley, Garo Krikorian, Alphonse James Lango, Barbara May, William Howard Paine, Robert Delos Presler, Clarence Dewey Rexroth, Jr., William Howard Scheckel, William Shouse, Luther Earl Smith, Howard Eanes Warren, Benjamin Wostein  
*Chemistry*: Charles Mayo Biller, Floyd Norton Daugherty, John Robert Mazero, Peter Klaus Mueller, Richard Lewis Reeves, Wilbert Joseph Robertson, Murray Spatz, Henry David Weaver, Jr., Richard Herbert Weingrad  
*Civil Engineering*: Rudolph Besier, Harry Bennett Crowell, Harvey Bernard Crummett, Rea Dalton, Elizabeth Hale Gallup, Konstantinos Karayianis,



- Richard Eugene Koester, Constantine Nicholas Mandragos, John Kinsey McCulloch, Michael Damianos Papamichael, Angeline Pappas, William Carter Riner, Lawrence Schneider, B.S. in C.E., Edward Simonetti, George Frank Titington, Jr., Henry Weeden
- Economics:* Oscar Roald Alvig, Charles Ellwood Cowell, Jr., A.B., Lilla Burt Cummings, A.B., Walter David Fackler, Miriam Isenman Frechtman, A.B., Paul Abraham Gekker, A.B., Clark Joel, A.B., Julius L. Katz, A.B., Charles Donald Matthews, A.B., Eugene Michael Picciano, A.B., Suzanne Virginia Richards, A.B., Julian Howard Singman, Robert Gay Trumbull, Jr., A.B., Douglas Price Weaver, A.B.
- Education:* Minnie Banks
- Electrical Engineering:* Frederick Hugh Battle, Jr., Dorothy Lee, Willis Vary, Robert Edward Winter
- English:* Zelda Diamond Fichandeler, A.B., Meredith Hale Gallup, Phyllis Bate Weissinger
- Geography:* Thomas Arthur Devan, A.B., Noeth Bolling Gillette, Alexander Gritz, Harland Walter Westermann, A.B.
- History:* Palmer Clark, A.B., Elizabeth Trucks Cole, A.B., Dan Norman Cross, Charles Howard Floyd, Rhoda Golden Freeman, A.B., Ernest William Fry, Dorothea Constance Fryer, Harry Bernard Glazer, Judah Greenzaid, Elaine Mildred Langerman, Thadeus Alphonse Lindner, Carrington Belt McGraw, A.B.
- Journalism:* Anne Mathilde Mattingly
- Mathematics:* Charles Alvin Bass, Ida Edith Hornstein, John Douglas Matheson, B.S., Margaret Herrilyn Mendenhall, Elizabeth Anne Sheppard, Joseph Jay Wolf
- Mechanical Engineering:* Richard Bartik, Gerald Leroy Scott, Richard Gordon Scott, Joseph William Widman
- Pharmacy:* Wilson Kress Bressler, Jack Goldberg, Warren Louis Johnson, William Keahey, Harry George Koustenis, James Ray Litkey, William Gerard Sanders, James Russell Weitzel
- Philosophy:* Selma Thelma Aber, Bernet George Hammel, Werner Strupp, A.B., Harman Lynn Womack, A.B.
- Physical Education for Men:* Howard Bovee, Julius Anthony Famulatte, Arthur Wallace Kennedy, David Parker, Edward Sato, Harvey Andrew Shipman, Julian Stein, Bruno John Zembrzusi
- Physics:* Raymond Westcott Briggs, Robert Franklin Custard, Maryse Helen Delevaux, Robert Jack Downs, Franklin Milton Everett, Paul Emanuel Fischel, John Wesley Kulp, Guy Rodgers Naylor, Jr., James Mahan Roamer, Jr., William Roberson, William Harrison Schultz, Frank Louis Tevelow, John Fisher Walton
- Political Science:* David Barson, Lee Clinton Bramlette, Jr., Theodore Bullockus, A.B., Samuel Cummings, A.B., Kurt DeWitt, A.B., Richard Cranning Harmstone, Eleanor Hoffman, Mildred McDowell, Donald Marshall Myrick, Juell Ness, A.B., Marie Panor, John Randolph Pherson, A.B., Kathryn Plugge, Thomas Eric Singer, Jerome Wagshal, Nancy Hanck Woodward, A.B.
- Psychology:* Doris Blandena Brown, Kathryn Burchard, John Eisele Davis, Jr., A.B., John Ogilvy Duncan, Mary Durham, Homer Eliades, Mary Viola Hall, A.B., Cecil Davis Johnson, A.B., Eva Johnson, Daniel Francis Kelly, Marguerite Amy Mitchell, A.B., William Eugene Montague, Marjorie Isabel Peterson, Leslie Saunders, A.B., Laura Shapiro, Forrest Shearin, Edward Samuel Sithens



*Romance Languages:* Katherine Jean Ashdown, Shirley Schuyler

*Secretarial Studies:* Mildred May Luers

*Sociology:* Marion Epstein, Marjorie Ann Hill, Kathleen Iseri, Barbara Lou Quigg

*Speech:* Kenneth Folse, John Sterling Johnson, Henry Charles Krebs, A.B., Richard Arthur Norman, Edward Loring Tottle, Janet Wildman

*Statistics:* Charles Franklin Crichton, Howard Dunn, A.M., Margaret Helen Fox, Donald Edward Lamphiear, William Josselyn Lawless, Jr., Joan Hertenstein Lev, A.B., Hobart Whitten Merritt, Noriar Pahigian, A.B., William Paul Stall-smith

*Zoology:* Walter Edwin Ahrens, A.B., Solomon Efreem Barr, Rita Marie Bie, Max Eugene Botts, Mildred Ann Campbell, Harry Nelson Carlton, B.S., Ann Court-right, Elgin Adams Dunnington, Jr., Albert Frederick Esch, Richard Henry Hedges, Francis Lincoln Lambert, B.S., Charles Kingsley Levy, B.S., Betty Lou Mann, Charles Edward McCreight, B.S., Barbara Elizabeth Mills, John Elliott Parker, Rudolph Siegfried Scheltema, Charles Lewis Schocket, Lawrence Robert Singer, Charles Harry Thorne, Jr.



# STUDENTS REGISTERED

## IN THE GEORGE WASHINGTON UNIVERSITY 1949-50

Aaberg, Mildred Dagny	Wash.	Ackoff, Alexandra Makar	D.C.
LL.B. 1942, Washington College of Law		A.B. 1950, Wayne University	N.Y.
Aarons, Isadore Alfred	Ga.	Acquista, Nicolo	
B.S. 1933, University of Chicago		A.B. 1942, College of the City of New York	
Aaronson, Charles Martin	D.C.	Acree, Frances C.	D.C.
Abadjis, Andreas	D.C.	Adair, James Reid	D.C.
A.M. 1948, University of South Carolina		Adams, Alton George	D.C.
Abbe, Mary Hyatt	Md.	Adams, Edward Paul	Pa.
Abbey, Vincent H. D.	D.C.	Adams, Emma G.	Pa.
A.B. 1947, University of Washington		Adams, Ethel Littlejohn	Va.
Abbott, Nancy	D.C.	A.B. 1938, Duke University	D.C.
Abbott, Frank LeRoy	Mo.	Adams, Frederick Fowler	Va.
A.B. 1939, Central College		Adams, George Eugene	Va.
Abbott, Mary Lee	Vt.	Adams, Harry Wesley	D.C.
Abbott, Robert Tucker	Va.	Adams, James Ronald	D.C.
B.S. 1946, Harvard University		Adams, Jane Marie	Md.
M.S. 1949, The George Washington University		Adams, Jay Harry, Jr.	N.Y.
Abbuhl, Charles, Jr.	Ohio	Adams, Josephine Mary	Va.
B.S. 1949, Ohio State University		Adams, Marjorie Anne	D.C.
Abdel-Rahim, Mahmoud Kamel	D.C.	Adams, Mary Kathryn	Va.
Abel, Edward	Mass.	Adams, Robert Louis	
Abel, Howard Bernal, Jr.	Pa.	A.B. 1949, Washington and Lee University	Va.
Abellon, Esther Marina	Cuba	Adams, Robert Nelson	N.J.
Abellon, Maria Luisa	Cuba	Adams, Robert Thompson	Calif.
Abelson, Allan Joseph	Md.	Adams, Thomas Mershon	Idaho
B.B.S. 1949, Temple University		Adcock, Irma Fitz	
Abend, Phillip Gary	D.C.	A.B. 1940, Th.B. 1941, Pasadena College	
Aber, Selma Thelma	N.Y.	Addis, Richard Barton	Ohio
Aberg, Robert Leonard	D.C.	Addison, Francis Girault	D.C.
Aberg, William Arvid, Jr.	D.C.	B.S. 1947, Washington and Lee University	
Abid, George E.	Wash.	Adelson, Morton Jackson	N.Y.
Abolins, Milda Priede	D.C.	Adem, Martin Lawrence	Va.
Aboud, Joseph	Ariz.	Adeval, Anthony Joseph	N.J.
Abraham, Abe Samuel	Calif.	A.B. 1949, Rutgers University	
B.S. 1938, Westminster College		Adireksarn, Pramarn	D.C.
Abraham, Albert Frederick	D.C.	Adkisson, Kathryn Eloise	Ill.
Abraham, Roger Chambers	Md.	A.B. 1937, University of Illinois	
Abrahams, William Henry	D.C.	Adler, Benjamin	D.C.
Abrahamson, Joseph Labe	Va.	B.Ch.E. 1937, College of the City of New York	
Abramowitz, Charles	N.Y.	Adler, Irving	Va.
A.B. 1948, LL.B. 1949, The George Washington University		B.S. 1939, New York University	
Abramowitz, Harry Arthur	N.J.	Adler, Raymond H.	N.Y.
Abrams, Allan Morton	D.C.	Adolfson, Roy Edward	Ill.
Abrams, Bernard Weiler	D.C.	Adrian, Alex Cothran	D.C.
B.E.E. 1941, Ohio State University		B.S. 1948, Wilson Teachers College	
Abrams, Edwin Fred	D.C.	Adrian, Donald Keith	D.C.
Abrams, Ida Ulman	D.C.	Ady, John Hamilton	Md.
A.B. 1949, Duke University		Agayoff, Theodore Daniel	Conn.
Abrams, Yehuda Hillel	Md.	A.B. 1949, The George Washington University	
Abramson, Aaron	N.Y.	Agens, Jeanette Field	Oreg.
Abramson, Milton E.	N.Y.	A.B. 1942, University of Oregon	
B.B.A. 1942, College of the City of New York		Agersborg, Enid Joyce	N.J.
Abushady, Safeya	N.Y.	Agersborg, James Albert	Ill.
Accetura, Emil Vincent	Conn.	Aguerrevere, Eugenio	Venezuela
Acevedo, Edith	N.Y.	Agusiewicz, Henry Anthony	Pa.
Ackerly, Robert Louis	N.Y.	B.S. 1947, A.M. 1949, The George Washington University	
Ackerman, Clotilda Damian	D.C.		
Ackerman, Harry	N.Y.		



Ahern, Frank Leo	D.C.	Allebach, Arlene	Pa.
B.S. in M.E. 1944, Cornell University		Alleman, Hubert Charles	La.
Ahlfield, George Samuel	Va.	A.B. 1929, West Virginia University	
Ahmanson, Ada Mae	D.C.	Allen, Alice Grieves	Pa.
B.S. 1948, University of Maryland		Allen, Alvah David	D.C.
Ahrens, Walter Edwin	D.C.	Allen, Arthur Slater	D.C.
A.B. 1949, Swarthmore College		B.S. 1949, Georgetown University	
Aiken, William David	Wash.	Allen, Barbara Ellen	Mo.
Ainley, James Edward, Jr.	Md.	Allen, Dan Charles	Ark.
Aires, Francis Leroy	N.J.	Allen, Donald Vail	Ill.
B.S. in B.A. 1948, Georgetown University		Allen, Edward Carlton, Jr.	Va.
Alamo, Juan Rodriguez	Puerto Rico	B.S. 1938, United States Coast Guard Academy	
Alawine, Alton Jackson	Miss.	Allen, Edward Clayton	Md.
Albamonte, Eugene	N.J.	A.B. 1940, Gettysburg College	Va.
Albamonte, Marion Delores	D.C.	Allen, Eileen Denney	
Albanese, Albert Andrew	N.Y.	A.B. 1938, University of Maryland	
Albaugh, Helen Elizabeth	Pa.	A.M. 1949, The George Washington University	
Albee, Edward Gutemuth	Md.	Allen, Howard Benson	D.C.
Alberghini, Thomas Joseph	Md.	Allen, James Morton	Va.
B.S. in Ed. 1943, Holy Cross College		LL.B. 1939, Washington College	
Albert, Irvin R.	D.C.	Allen, Jere M.	Pa.
A.B. 1936, The George Washington University		Allen, John Joseph	Md.
Albert, Marjorie Florence	D.C.	Allen, Leon	N.C.
Albert, Sterling Hartwell	Va.	Allen, Mabel Randolph	Va.
Albertson, Arthur Grant	Utah	A.B. 1924, University of Richmond	
Albertson, Harold Francis	Va.	A.M. 1949, The George Washington University	
A.B. 1936, Earlham College		Allen, Meredith Ernest	Okla.
Albertson, Marianne	D.C.	A.B. 1937, LL.B. 1937, University of Oklahoma	
B.S. 1946, Purdue University	N.H.	Allen, Nancy Leigh	D.C.
Albren, Edward Joseph		Allen, Rembert Gary	Va.
B.S. in C.E. 1949, University of New Hampshire		Allen, Richard Hiram	D.C.
Albright, Frank Glenn	W.Va.	Allen, Robert Brooke	N.Y.
Alden, Ruth	Va.	Allen, Rosa Jane	D.C.
A.B. 1943, University of the Witwatersrand, Johannesburg, South Africa		Allen, Rose Marie	D.C.
Alderson, Wilbur Stanley	D.C.	A.B. 1947, McGill University	D.C.
Alderton, Roderick	N.Y.	Allen, Theodore Savalard	D.C.
B.S. 1948, Georgetown University		Allen, Thomas Howard	N.Y.
Aldhizer, Carthon Evans	Va.	Allen, Thomas Joseph, Jr.	D.C.
Aldous, Elaine	Md.	Allen, Waitman Triplett	Va.
A.B. 1947, University of Minnesota		Allender, Thomas	D.C.
Aldridge, Thomas Dale	Md.	Allex, Victor	
Alduk, Thomas J.	D.C.	A.B. 1930, The George Washington University	
Ale, Charles William	Va.	Alley, Edith	N.C.
A.B. 1943, Hampden-Sydney College		B.S. 1938, Western Carolina Teacher's College, N. C.	
LL.B. 1949, Washington and Lee University		Allin, Mary Elizabeth	Md.
Alexander, Aaron David	N.Y.	A.B. 1948, University of Wisconsin	
B.S. 1938, College of the City of New York		Allin, Thomas Gritton, Jr.	Wis.
Alexander, Anne Cecelia	Pa.	A.B. 1946, Missouri Valley College	
Alexander, Harold Bell	Md.	B.S. 1947, M.D. 1949, University of Wisconsin	
Alexander, Isabelle Maude	D.C.	Allinger, Dorothy Ann	Md.
Alexander, Joseph	Va.	Allinger, Helen	Pa.
Alexander, Mae Belva	Calif.	Allison, Horatio	D.C.
Alexander, Marion Thomas	D.C.	Allison, Joan	D.C.
Alexander, Mary Louise	Md.	Allison, Ola Hannah	Ohio
A.B. 1946, Western Maryland College		A.B. 1929, Rio Grande College	
Alexander, Norval Don	Okla.	Allnutt, Benjamin White	Md.
Alexander, Ronald McKenzie	D.C.	A.B. 1941, Western Maryland College	
Alexander, Roy L., Jr.	N.J.	Allnutt, Ralph Bogley	D.C.
A.B. 1948, Duke University		Allmont, René Charles	N.Y.
Alexander, Roy M.	Pa.	Allwine, Robert Thomas	D.C.
LL.B. 1941, National University		Almeida, Virgil A.	N.Y.
Alexander, Vernon Duckworth	D.C.	Almy, Dean Johnson, Jr.	Md.
Alexiou, Louis	N.Y.	Almy, Donald Comstock	Ohio
Alexis, Everett Crispin	D.C.	A.B. 1933, A.M. 1937, Western Reserve University	
Alkire, Robert McGregor	D.C.	M.B.A. 1948, Columbia University	
Alldrige, Alfred Robert	Pa.		



Almy, Helen	Md.	Anderson, Carl Robert	Pa.
Alpar, Faika Fatma	D.C.	A.B. 1948, The George Washington University	
Alseger, Lealie Eugene	Minn.	Anderson, Carolyn Grace	Pa.
B.M.E. 1949, University of Minnesota		Anderson, Earl Edward	W.Va.
Alster, Caliste Jay	Ill.	B.S. 1940, A.M. 1949, West Virginia University	
B.S. 1948, Massachusetts Institute of Technology		Anderson, Edward James	N.Y.
Alterman, Toby T.	Va.	B.S. 1947, Siena College	
Altman, Gerald	Mass.	Anderson, George Ross, Jr.	S.C.
B.S. 1943, LL.B. 1949, Boston University		Anderson, George Thomas	D.C.
Altman, Pauline Dorothy	D.C.	Anderson, Geraldine Elizabeth	D.C.
A.B. 1931, Hunter College		Anderson, Harvey Henderson	S.C.
Altman, Verna Pearl	D.C.	B.S. 1941, The Citadel	
A.B. 1947, Washington Missionary College		Anderson, Helen Margaret	Md.
Altmann, Andrew Taylor	Md.	Anderson, Henry Clay	Va.
B.S. 1941, University of Maryland		Anderson, Herbert King	Md.
LL.B. 1948, The George Washington University		Anderson, Jane	Va.
Altmeyer, Anne	D.C.	Anderson, Jane Pamela	Va.
Altmire, Herbert Daniel	D.C.	A.B. 1945, Lawrence College	
Altschuler, Eugene	N.J.	Anderson, Kenneth Arthur	Ill.
Altschuler, Oscar	N.Y.	Anderson, Loretta May	D.C.
Altszuler, Norman	Conn.	Anderson, Nancy	D.C.
Alvey, Ernest Brandon	Va.	Anderson, Nellie Carr	D.C.
LL.B. 1949, The George Washington University		A.B. 1943, The George Washington University	
Alvig, Olav Henry	Va.	Anderson, Nora Agnes	Fla.
Alvig, Oscar Roald	Va.	Anderson, Robert Clinton	Va.
Alvord, Clarissa	D.C.	B.S. 1938, Roanoke College	
Amataykul, Ravi	D.C.	Anderson, Robert Lee	Conn.
Amato, John Ignatius	D.C.	Anderson, Robert Leigh	D.C.
Amato, Philip J.	D.C.	Anderson, Robert Reynolds, Jr.	Va.
Amegakkar, Nalini Krishnarao	India	B.S. 1933, University of Richmond	
A.M. 1945, University of Bombay		Anderson, Roy Winton	Calif.
Amberg, Robert Warren	Ill.	Anderson, Valda Clark	D.C.
Amblor, George Chester	Va.	Anderson, William Abbott	D.C.
B.S. 1940, The George Washington University		Anderson, William Lawrence	Md.
Ambrifi, Elaine Doris	R.I.	B.C.E. 1925, Ohio State University	
A.B. 1948, Pembroke College		Anderson, William Walter	Ill.
Amdur, David Morris	Va.	Andes, Paul Gowdy	Fla.
Ames, Barbara Anne	N.J.	Andia, Julian Frank	D.C.
Ames, Madge Elizabeth	Maine	Andolfatto, Viola Antonette	D.C.
Amidon, Robert Horace	D.C.	Andress, Frank Samuel	Va.
Ammann, Helen Virginia	Va.	Andrews, Adeline Lovell	N.Y.
Ammon, William Bronley	Pa.	Andrews, Alphonse Michael	Mass.
B.S. 1923, United States Naval Academy		Andrews, Anna Vaughan	Mass.
M.S. 1930, Harvard University		Andrews, Lee Austin	Calif.
Amram, David Werner	D.C.	Andrews, Marilyn Brownfield	D.C.
Amram, Marianna Beulah	D.C.	Andrews, Melvin Keith	N.Y.
Amster, Morton	N.J.	Andrews, Norman Jacob	Pa.
B.S. in E.E. 1948, Rutgers University		Andrews, Paul Jacob	
Amsterdam, Melvin Lawrence	D.C.	A.B. 1938, Amherst College	
Anagnos, Panagiotis George	Md.	LL.B. 1942, Dickinson College	
Anastasiades, Plato	Ohio	Andrews, Rebecca Elizabeth	D.C.
Anastopoulos, Nicholas A.	Mass.	A.B. 1929, M.S. 1930, University of Georgia	
Anastos, John	N.Y.	Andrews, Thurley Louise	R.I.
Anders, Frank Ward, Jr.	Md.	A.B. 1946, The George Washington University	
A.B. 1949, The George Washington University		Andrews, William Taylor	D.C.
Anders, James Alfred	D.C.	B.E.E. 1944, The George Washington University	
Andersen, Allen Frederick	Va.	LL.B. 1949, Albany Law School	
Andersen, Stephen Foss, Jr.	D.C.	Andrich, Dan John	Minn.
Andersen, Svend Aage	D.C.	Angel, Grover La Marr	N.C.
Anderson, Benjamin Ernest, Jr.	Md.	A.B. 1929, High Point College	
Anderson, Beulah Robinson	Va.	A.M. 1946, The George Washington University	
B.S. 1942, Radford College		Angel, Jerry Irwin	N.Y.
Anderson, Bowman Cowne	Va.	Angel, Nell English	N.C.
A.B. 1946, The George Washington University		B.S. 1941, Appalachian State Teachers College, N. C.	
		Angel, William Irby, Jr.	Va.



Angelaras, James George	D.C.	Armentrout, DeWitt Russell	Va.
Angell, Jack Robert	N.Y.	Armstrong, Albert Claude	N.Y.
Angello, Dolores Bess	N.J.	Armstrong, Charlotte Orr	Ohio
Angelo, Patricia Wilson	Va.	Armstrong, George Duff	D.C.
Angle, William Ward	Va.	Armstrong, Henry Jacques	D.C.
Angus, Robert	Va.	Armstrong, Mary Emma	D.C.
Ankers, John Edward	D.C.	Armstrong, Robert Gordon	Calif.
Annis, Elizabeth deCourcy	D.C.	Arnold, Rosalie Bryant	Okla.
Annis, Helen Woodburn	Md.	Arnberger, Leslie Preston	D.C.
B.S. 1930, Muskingum College		Arness, John Allan	Ariz.
Annis, Robert James	Mich.	Arness, Ruth McCraw	Va.
Anselmo, Lucy Theresa	D.C.	Arnett, Maxie Mauk	Va.
Ansher, Harold	N.Y.	A.B. in Educ. 1945, Morehead State College, Ky.	
A.B. 1939, Brooklyn College		Arnett, Rollo Wilson	Va.
Ansher, Norton	N.Y.	Arnold, Dorothea	Mich.
B.E.E. 1949, The George Washington University		Arnold, John Dunn, Jr.	N.C.
Anstead, Roy James	D.C.	Arnold, Kenneth Franklin	Va.
Antel, Barbara Jean	D.C.	Arnold, Marjorie Gertrude	Wis.
A.B. 1948, The George Washington University		A.B. 1947, Wellesley College	
Antholis, Cleo	D.C.	Arnold, Thomas Oren	Tex.
Anthony, James Nicholas	D.C.	B.S. in E.E. 1944, LL.B. 1949, University of Texas	
A.B. 1948, The Citadel		Arnos, Rose Mary	N.H.
Anton, Alfred John	Va.	Aronson, Ellis Smiler	D.C.
A.B. 1948, University of Missouri		Aronson, Frances Bernice	D.C.
Anton, Ruth Martha	Iowa	Aronson, Norman Leonard	D.C.
Antonelli, Francis Anthony	D.C.	B.S. 1947, Georgetown University	
Antoun, Edmond John	Pa.	Aronson, Sylvan Bernard	D.C.
Anzaldua, Edna	Tex.	Arrants, Iris Nancy	Va.
Anzaldua, Fausto	Tex.	Arrick, A. Arlene	Ohio
Apgar, Harry Emanuel, Jr.	Va.	Arrowsmith, Arthur VonGlentworth	Va.
A.B. 1938, Lafayette College		B.S. in Educ. 1932, Edinboro State Teachers College, Pa.	
Apgar, Herbert Leroy	D.C.	Arroyo, Francisco Hernandez	Tex.
Aponick, Joseph Ronald	Pa.	A.B. 1948, Hardin Simmons University	
B.S. in Educ. 1941, Bloomsburg State Teachers College, Pa.		Arsem, Collins	Md.
App, Oliver Leo	Wis.	Arsoy, Orhan	D.C.
Appel, James Dunford	Md.	Arthaud, Richard Edward	Mo.
B.S. in M.E. 1949, Pennsylvania State College		B.S. in C.E. 1944, University of Missouri	
Appel, Lila	D.C.	Arthur, Frank Melvin	Va.
Applegate, John Curtis	Ohio	Arthur, John Joseph	D.C.
Appleman, Herbert Stanley	Ill.	Artstein, Denise	D.C.
B.S. 1940, University of Illinois		Artz, Harry Edward	Pa.
M.S. 1947, University of Chicago		Arvanetes, John	N.J.
Applestein, David	D.C.	Arveson, Maude Eleanor	Wis.
A.B. 1949, The George Washington University		A.B., B.S. in Ed. 1925, Lindenwood College	
Applestein, Geraldine	N.Y.	A.M. 1941, Columbia University	Utah
Appunn, George Gerard	D.C.	Asano, Paul Sachio	Oreg.
Apter, Ronald Allen	D.C.	Asbury, Glenn Cameron	
Aranburu, Cielo Borquez	Peru	B.S. 1946, Denver University	N.Y.
Arango, Hector Ospina	Colombia	Asch, Mildred R.	N.Y.
B.S. 1942, Lireo de la Salle		A.B. 1940, Hunter College	
Araujo-Vidal, Juan	Puerto Rico	Aschenbrand, Leonard M.	
B.S. 1940, University of Puerto Rico		B.S. 1947, College of the City of New York	
Arce, Arthur George	N.J.	A.M. 1949, New York University	
Arch, Edward Kenneth	Pa.		
Archangel, Olivia M.	Pa.		
Archer, Crit Alexander	Miss.		
Arduini, Anthony Joseph	D.C.		
Arduini, Rose Catherine	D.C.		
Arena, Mary Regina	N.C.		
Artman, Herbert Edward	Ohio		
Argerakis, Alexander Nicholas	Md.		
Argleben, Arthur Robert	Calif.		
Arlotta, Russel Anthony	N.Y.		
Armbruster, Francis Edward	Pa.		
A.B. 1948, The George Washington University			
Armbruster, Ralph Edward	D.C.		
Armenaka, Rita Emmanuel	Greece		



Ash, Hughes Lanier	Va.	August, Frank Joseph	D.C.
A.B. 1932, North Georgia College		B.S. 1943, A.M. 1947, The George Washington University	
Asha, John Michael	D.C.	Augustine, James Julian	Ill.
Ashby, Helen	Ind.	Ault, John Miller	Pa.
B.S. 1937, Northwestern University		Auriti, Anthony Augustine	D.C.
Ashby, Richard	Va.	Austin, Carroll Wayne	N.C.
A.B. 1936, University of Florida		Austin, Dean Menlo	Idaho
A.M. 1938, University of North Carolina		Austin, Edwin Cogswell	Va.
Ashby, Wallace	D.C.	Austin, Hampton Lambert	D.C.
A.B. 1947, The George Washington University		Austin, Ralph Raymond	Va.
Ashdown, Katherine Jean	Md.	Austin, Rodney Elmer	
Ashe, Ray Lester	D.C.	A.B. 1948, Western Maryland College	D.C.
Asher, Cleona	Fla.	Austin, Roland M.	Va.
Asher, Sydney Solomon, Jr.	Va.	Austin, William Wickliffe	D.C.
B.S. 1933, LL.B. 1936, University of Pennsylvania		Auten, Howard Leonidas	Va.
Ashford, Robert Sidney	Va.	Autio, Ila M.	Va.
A.B. 1948, Princeton University		Auvil, Carl Edward	
Ashida, James Haruso	Wash.	A.B. 1938, Berea College	D.C.
A.B. 1941, University of Washington		Avancena, Manuel Claude	Va.
A.M. 1947, Pennsylvania State College		Aven, Arnold R.	D.C.
A.M. 1948, University of Chicago		Avery, John Lawrence	
Ashley, Robert Fredericke	Tex.	B.S. 1937, University of Maryland	D.C.
Ashmore, Charles DeLoach	Ga.	M.S. 1939, The George Washington University	
A.B. 1938, Harvard University		Avidor, Eva	D.C.
Ashton, Rudolph Alexander	Md.	M.S. 1940, University of Jerusalem	N.Y.
A.B. 1940, LL.B. 1947, The George Washington University		Avin, Martin	
Ashworth, Charles Raymond	Idaho	B.S. 1934, Brooklyn College	D.C.
Ashworth, George Clarke	Va.	LL.B. 1937, Harvard University	
B.S. 1939, Illinois Institute of Technology		Avril, John Jacob	D.C.
Asin, Hy	N.Y.	B.S. 1950, University of Maryland	Mass.
Askew, William Robert	Md.	Awramik, Joseph, Jr.	
Asowitch, S. Gertrude	D.C.	B.E.E. 1949, The George Washington University	D.C.
Aston, Martha Lamborn	Va.	Awtry, James Dewey	Va.
A.B. 1948, College of William and Mary		Axtell, George Clifton	D.C.
Atchison, Marguerite	D.C.	Ayapa, Cheeyakupuvanda Bhimaya	N.Y.
A.B. 1926, A.M. 1931, The George Washington University		Aydinian, Richard Thomas	Ill.
Atkeson, Clarence Lee Conner	D.C.	Aye, Ralph Claxton	
B.S. 1922, United States Naval Academy		M.S. 1941, Northwestern University	Colo.
Atkin, Harry	D.C.	Ayers, Arnold Welcome	Ill.
Atkins, John Dillard, Jr.	Va.	Ayers, June Elizabeth	
B.S. 1940, North Carolina State College		A.B. 1946, The George Washington University	D.C.
Atkins, Norman Louis	Md.	Ayers, Kingdrel Navarre	
Atkinson, Charles Fred	Ohio	B.S. 1941, United States Coast Guard Academy	Va.
A.B. 1948, The George Washington University		Ayers, Richard Fowler	Va.
Atkinson, Ethel Kathleen	Ohio	Ayers, Theodore Aley	
B.S. 1928, Carnegie Institute of Technology		A.B. 1941, University of Virginia	Pa.
A.M. 1940, Western Reserve University	Va.	Ayers, William Glenn	D.C.
Atkinson, Roderick Dhu	D.C.	Aynes, Edith Annette	
Atkinson, Wade Hampton	Siam		
Attanan, Chinda	D.C.	B	
Attix, Evelyn Louise	Md.	Babb, Eugene Campbell	Va.
Attix, Frank Herbert		Babbitt, Bernard Lewis	Va.
A.B. 1949, University of California		Babcock, Margaret Shippen	D.C.
Atwell, Horace Leroy	D.C.	A.B. 1949, The George Washington University	
Atwood, Arthur William	Okla.	Babcock, Violet A.	Va.
Aub, David Joseph	D.C.	A.B. 1920, Vassar College	
Aubrey, Martha Carrington	D.C.	A.M. 1922, Johns Hopkins University	Pa.
Auerbach, Arnold Jacob	Va.	Babeaux, Kenneth Joseph	Va.
B.S. 1940, A.M. 1941, The George Washington University		Baber, Carol Virginia	Ark.
		Baber, James Clyde	D.C.
		Babigan, Janet Ruth	India
		Bacchus, Azeez	
		B.S. 1947, Howard University	



Bacchus, Habeeb	British Quiana	Bailey, William Harris	D.C.
B.S. 1947, Howard University		Bailey, Wilma Alethea	Pa.
M.S. 1948, The George Washington University		B.S. in Ed. 1944, California State Teachers College, Pa.	
Bacchus, Joan Ruth	Md.	Bailey, Wilma Blanche	D.C.
Bacheller, Herbert Worden	Va.	Bain, Cody	Okl.
B.E.E. 1936, Rensselaer Polytechnic Institute		Bain, Robert Francis	N.Y.
Bachhawat, Bimal Kuma	India	Bains, George Washington	Va.
M.S. 1948, University of Calcutta, Bengal		B.S. 1925, United States Naval Academy	
Bachrach, Morton W.	Va.	LL.B. 1931, Birmingham Southern College	
B.S. 1947, Roanoke College		Bair, Edward William	D.C.
Backs, Dorothy Marie	Wash.	Bair, William Benton	Pa.
Backster, Grover Cleveland, Jr.	D.C.	Baird, Donald Benson	Pa.
Bacon, George Marion, Jr.	Va.	A.B. 1948, University of Pittsburgh	Colo.
A.B. 1949, College of William and Mary		Baird, Keith Dwight	D.C.
Bacon, James Everett, Jr.	Md.	Baisinger, Grace C.	Md.
Bacon, John George	Wash.	Bakeman, Robert Atherton	
B.S. 1949, Georgetown University		A.B. 1932, Middlebury College	D.C.
Bacon, Seward Maddox	D.C.	Baker, Annette Cinn	
Badanes, William Louis	Va.	B.S. in Ed. 1940, New York State Teachers College, Buffalo, N. Y.	
Baden, Francis DeSales	D.C.	Baker, Arnold Stephen, Jr.	Maine
Badger, Donald Gibson	Australia	Baker, Bobby Gene	S.C.
A.B. 1937, University of Adelaide, S. Australia		Baker, Bonnie V., Jr.	D.C.
Badway, Victor Wolf	D.C.	Baker, Carl Wilfred	Ohio
Baechtold, Arthur Lewis	Va.	B.S. 1948, Ohio State University	
Bagan, Michael	N.Y.	Baker, Charles Clare	Calif.
Bagby, Mary Lawton	Md.	Baker, Dolores Myrna	D.C.
A.B. in Govt. 1945, The George Washington University		Baker, Edward Welch	Okl.
Bagdoyan, Leila Marie	D.C.	Baker, George Summers	Calif.
Bagley, Edward Joseph	N.Y.	Baker, Gerald Lee	Ohio
Baglio, Joseph Michael	N.Y.	Baker, Glwynn Robinson	
Bahadur, Suraj Shumshere Jung	India	B.S. in Ch.E. 1948, Purdue University	Tenn.
H.S. 1944, Cambridge University, England		Baker, Harold Leon	Okl.
B.S. 1945, Punjab University, India		Baker, Harry LeRoy	
A.B. 1947, A.M. 1949, Ohio State University		A.B. 1947, The George Washington University	
Baile, Edmund Felix	Md.	Baker, Jack	D.C.
Bailey, Arthur Duncan, Jr.	D.C.	Baker, James Louis	D.C.
Bailey, Arthur William	Conn.	Baker, Margaret Louise	D.C.
A.B. 1949, The George Washington University		Baker, Marion	Ky.
Bailey, Bertha James	Va.	Baker, Mildred Louise	D.C.
Bailey, Burl L.	Mich.	Baker, Raymond Harold	D.C.
M.S. 1942, Harvard University		A.B. 1940, Western Michigan College	
Bailey, Charles Robert	D.C.	M.B.A. 1949, University of Texas	Ill.
Bailey, Earl Belden	Va.	Baker, Rex Harding	
B.F.A. 1928, Yale University		A.B. 1948, University of California at Los Angeles	R.I.
Bailey, Frank	W.Va.	Baker, Richard Brown	
A.B. 1933, Glenville State College		A.B. 1935, Yale University	
A.M. 1940, West Virginia University		A.B., A.M. 1944, Oxford University	Wash.
Bailey, Henry Conner	D.C.	Baker, Robert Clifford	
Bailey, James Edwin	Minn.	A.B. 1948, University of Minnesota	Pa.
B.S. 1941, University of Minnesota		Baker, Waldon Lee	Va.
LL.B. 1947, Georgetown University		Baker, William Albert, Jr.	Va.
Bailey, Joseph Fortune	Tenn.	Baker, William Clinton	Ill.
Bailey, Kenneth Alexander	N.C.	Baker, William Harold	N.J.
Bailey, Lorraine	Utah	Bakker, Cornelis Johannes	Mass.
Bailey, Margaret Allison	Mo.	Bakon, Frederick Joseph	Pa.
A.B. 1949, The George Washington University		Balaker, Basil Charles	Va.
Bailey, Margaret Lucille	D.C.	Balavage, Albert Alphonsus	
Bailey, Marguerite Evelyn	Va.	B.S. 1947, University of Pennsylvania	N.J.
Bailey, Mildred Pauline	Md.	Balcerzak, Henry R.	Mich.
B.S. 1948, Wilson Teachers College		Balczak, Elizabeth Jane	Va.
Bailey, Owen Walter	D.C.	Baldauf, John Augustine, Jr.	D.C.
A.B. 1948, Colby College		Balderson, Leroy Robert	Pa.
Bailey, Russell Edward	Ind.	Baldrick, Olga Turansy	D.C.
		Baldrige, Emily	
		A.B. 1936, DePauw University	



Baldrige, Reid A.B. 1948, The George Washington University	D.C.	Baratta, James Carrol Baratta, Michael Vincent A.B. 1949, Columbia College	Md. N.Y. D.C.
Baldwin, Charles Adams	Md.	Barber, Alvin Thomas B.S. 1931, Susquehanna University	D.C.
Baldwin, Charles Crittendon A.B. 1949, St. Johns College, Md.	Md.	Barber, Charles Farmer	Fla.
Baldwin, Don Mervin	Mich.	Barber, Frederick Willard A.B. 1941, The George Washington University	Calif.
Baldwin, Robert Buckingham	N.J.	Barber, Lloyd Morris	D.C.
Baldwin, William Augustus	N.J.	Barbera, Anthony Ferdinand	Md.
Balfour, Don Arthur	D.C.	Barberena, Gonzalo Enrique	D.C.
A.B. 1945, The George Washington University		Barberio, Joseph Roland B.S. 1945, M.D. 1947, University of Chicago	Pa.
Balian, Berge B.S. 1942, College of St. Joseph, Syria	Syria	Barbieri, Louis Joseph B.B.A. 1940, College of the City of New York	N.Y.
Balian, Zareh	D.C.	Barbour, George Lane A.B. 1949, Harvard University	Minn.
Balinger, Richard King	Va.	Barbour, Mary Jane A.B. 1949, The George Washington University	Va.
Balish, Nicholas John	Va.	Bardwell, Chester Loomis	Mass.
Balkany, Robert Thomas	France	Barefoot, Julius Jackson	N.C.
Ball, Charles Emmet B.S. 1949, The George Washington University	D.C.	Barefoot, Verna Young B.S. 1938, University of Cincinnati	N.C.
Ball, Douglas B.E.E. 1943, Colorado School of Mines	Colo.	M.S. 1945, University of Chicago	
Ball, James Arthur	Mo.	Barezofsky, Frances A.B. 1948, The George Washington University	D.C.
Ball, Joseph James	Md.	Bargar, John Raymond	Fla.
Ball, Marillyn Alice	S.C.	Barger, Herman H. A.B. 1937, Harvard University	Mass.
Balla, Michael Philip A.B. 1949, The George Washington University	Pa.	Bargh, Pickard Fowler	Va.
Ballance, James Orlan	Ill.	Barghausen, Alfred Frederick, Jr.	D.C.
Ballard, Carl Clive	Ohio	Barila, Timothy George	N.M.
Ballard, Jennings Fletcher A.M. 1947, Columbia University	Va.	Barinott, Jeanne Frances B.S. 1947, Pennsylvania State College	Pa.
Ballard, Ralph Campbell	D.C.	Barish, Benjamin J. B.S. in E.E. 1946, Illinois Institute of Technology	Mich.
Ballenger, Claude Newton, Jr. A.B. 1948, University of Virginia	Va.	Barish, Joseph	Pa.
Ballenger, Maxine Miley	Vt.	Barker, Hildred Agnes B.S. 1934, Mary Washington College	Va.
Ballentine, John Jennings B.S. 1917, United States Naval Academy	D.C.	Barker, Joseph C. Barker, Robert Clifford	Okla.
Ballentine, Margaret Hilda	S.C.	B.S. 1949, Rider College	Pa.
Balli, Carl Eugene	Fla.	Barkey, Helen Carlson	Va.
Ballingier, John Carter B.S. in Eng. 1948, The George Washington University	D.C.	Barkley, Anne Marie A.B. 1941, New York University	Md.
Ballou, Arthur Willis	D.C.	A.M. 1942, Columbia University	
Baloga, Aloys Joseph	Pa.	Barkin, Gilbert Donald B.S. 1949, The George Washington University	D.C.
Balogh, Stephen Elmer, Jr.	D.C.	Barkman, William Ernest LL.B. 1923, A.B. in Ed. 1936, A.M. 1937, The George Washington University	D.C.
Balukonis, Michael Peter	D.C.	Barkow, Mearl Marietta	Minn.
Balzer, Clayton Paul	Md.	Barlow, Bill Ray	Ohio
Banagan, Civita Ann	Ind.	Barlow, Ivan Hugh	D.C.
Bancroft, Raymond Lowell	N.Y.	Barlow, Shirley	Mass.
Bandle, Marion Karl A.B. 1940, Brigham Young University	D.C.	Barmby, John Glennon A.B. 1944, Middlebury College	Mass.
Bandy, Alva Harlan	Utah	B.S. 1944, Massachusetts Institute of Technology	
B.S. 1947, Kansas State College of Agriculture and Applied Sciences	Kans.	Barnard, Richard Paul B.S. in M.E. 1947, University of Michigan	Mich.
LL.B. 1949, Washburn Municipal University of Topeka		Barnekov, Christopher Conkling	Va.
Bangle, Lester Wayne	D.C.	Barnes, Bernice O.	W.Va.
Banker, Robert Darrell A.B. 1949, The George Washington University	Calif.	Barnes, Clarence Adam	Md.
Banko, Andrew	Pa.		
Banks, Minnie B.S. 1936, Madison College	D.C.		
A.M. 1947, The George Washington University			
Banks, Albert Peter	Calif.		
Banner, Adam Paul	Ill.		
A.B. 1949, Evansville College			
Barakat, Diawar Hasson	Egypt		



Barnes, Donald Bentley	Va.	Barry, Gerard Stephen	D.C.
Barnes, Donald Frederick	D.C.	B.S. 1948, Georgetown University	Va.
Barnes, Donald William	Va.	Barry, James Vance	Va.
Barnes, Duard Roof	Ariz.	Barry, John James	D.C.
A.B. 1949, The George Washington University	D.C.	Barry, John Patrick	D.C.
Barnes, Evelyn T.	D.C.	Barry, John William	D.C.
A.B. 1931, Lynchburg College	D.C.	Barry, Joseph Robert	Va.
Barnes, Helen Louise	D.C.	Barry, Madeleine Barrymore	Va.
Barnes, Howard Emerson	Md.	Barry, Mary Jane	Va.
B.S.E. 1935, University of Florida	Va.	B.S. 1926, M.S. 1927, Boston Teachers College	Pa.
Barnes, Joanne Louise	Md.	Barry, Thomas Anthony	Va.
Barnes, John Lockard	D.C.	Barsigian, Flora Marie	Va.
A.B. 1948, Western Maryland College	D.C.	Barsky, Cyril	D.C.
Barnes, Kenneth Clark	Ill.	Barson, David	Ohio
Barnes, Snell Hardin	Va.	Bartch, Carl Edward	Va.
Barnes, Virginia Belle	N.Y.	A.B. 1947, The George Washington University	Mass.
Barnett, Abby Joy	Colo.	Bartelloni, Henry John	Pa.
Barnett, Charles Maxwell	D.C.	Barth, Leah Wanda	N.J.
Barnett, Helen McConnell	D.C.	B.S. 1947, Bloomsburg State Teachers College, Pennsylvania	Va.
A.B. 1947, The George Washington University	D.C.	Bartik, Richard	Va.
Barnett, James Encil	D.C.	Bartimo, Frank Antonio	D.C.
Barnett, Robert Alexander	Colo.	A.B. 1941, Clark University	Ohio
A.B. 1949, The George Washington University	D.C.	LL.B. 1944, The George Washington University	Pa.
Barnett, Thomas Mather	D.C.	Bartkowski, Adam Anthony	W.Va.
Barnhart, Arthur Gooding	Md.	Bartkowski, Florence	D.C.
Barnhart, C. Paul	Va.	Bartles, Emily May	D.C.
A.B. 1930, Lebanon Valley College	Va.	Bartlett, Dorsey Joseph	Md.
M.S. in Ed. 1943, University of Maryland	Va.	Bartlett, Henry A.	Mo.
Barnhill, William James	Va.	Bartlett, John Stanton, Jr.	D.C.
Barnsley, Richard Souder	Va.	B.E.E. 1947, The George Washington University	Fla.
Barnthouse, Darwin Collier	Conn.	Bartlett, William Harold	La.
Barnum, John Wallace	N.Y.	A.B. 1949, Drury College	D.C.
A.B. 1949, Yale University	D.C.	Bartley, Richard Harry	Va.
Baroff, George Stanley	D.C.	Bartmes, Russell	D.C.
B.S. 1948, The George Washington University	Pa.	B.S. 1948, United States Naval Academy	N.Y.
Baron, Florence Catherine	N.J.	Bartmess, Elliot Sherman	D.C.
Baronitis, Madeline Dorothy	Pa.	B.S. 1947, Louisiana State University	D.C.
Barr, Joseph Frederick	D.C.	Barton, Charles Edwin	D.C.
Barr, Marie Ann	N.J.	A.B. 1934, Juniata College	D.C.
Barrasso, Joseph Alfonso	Mass.	A.M. 1940, The George Washington University	Va.
Barreira, Urbino Joseph	D.C.	Barton, Fred Hubert	D.C.
Barrett, Annabel Lombard	D.C.	Barton, Victor Ewing	D.C.
A.B. 1927, Barnard College	D.C.	Baruch, Blanche Josephine	N.Y.
Barrett, Beverly Mae	Va.	B.S. 1943, Wilson Teachers College	D.C.
A.B. 1949, The George Washington University	D.C.	Baruch, Maurice Jacques	D.C.
Barrett, John Francis	Ga.	B.S. 1935, College of the City of New York	D.C.
Barrett, Millicent	D.C.	Baruchin, Belle	D.C.
Barrett, William Harbour	D.C.	Baruchin, Joan	Md.
Barrick, Donald Michael	Conn.	Barwick, Joel Richard	D.C.
Barrington, Oscar Dewey	Fla.	Barwick, Leonard	Pa.
Barrington, Ruth Maguire	Pa.	Basarab, Stephen	D.C.
B.S. 1942, Florida Southern College	Va.	Basdekian, Edward Albert	Va.
Barrison, William John	Va.	Basham, Anne Layton	D.C.
B.S. 1946, East Stroudsburg State Teachers College, Pennsylvania	Fla.	Basham, Frances Alma	Pa.
Barron, Edwin Selwyn	D.C.	Basil, Mario E.	Pa.
A.B. 1949, College of William and Mary	D.C.	Basile, Anthony Stephen	Tex.
Barron, Louise Irene	N.C.	Baskin, Alan Irwin	D.C.
Barron, Norman Eugene	Ky.	A.B. 1949, Pennsylvania State College	D.C.
Barron, Paul Jerome	Md.	Baskin, James Dollar	D.C.
Barrow, Claude Arnold	Md.	B.S. 1946, United States Naval Academy	D.C.
Barrow, Edwin Bixler	Md.	Baskin, William Maxwell	D.C.
Barrow, Samuel Wheeler, Jr.	Md.	Bass, Charles Alvin	D.C.
Barry, Clarence James	Md.		



Bass, Charles White	Tenn.	Baxter, Charles Sayre, Jr.	Va.
A.B. 1949, The George Washington University		Baxter, David Louis	Md.
Bass, Marvin William	Pa.	A.B. 1937, St. John's University	
A.B. 1948, The George Washington University		Baxter, John Elston	Md.
Basta, John William	D.C.	Baxter, Maude Neilson	Pa.
Bastian, David Charles	D.C.	Bay, Paul Georgeoff	Ill.
A.B. 1948, University of Maryland		Bayer, Jacob Weller	Mo.
Baszkowski, Thomas Richard	N.J.	Bayer, Ralph Robertson	Va.
Batalo, George	W.Va.	B.S. 1935, Ohio State University	
Batchelor, Eileen	D.C.	Bayles, Barney Elishia	Md.
Bateman, William Raphael	D.C.	Baylies, Sofrona Fielding	Mo.
Bates, Barbara	Va.	Baylinson, Richard Norman	N.J.
A.B. 1947, Barnard College		Bayol, Permelia Burgess	Va.
Bates, Frederick Leroy	Va.	Bayon, Harry	Va.
A.B. 1949, The George Washington University		Bayreuther, Florence Elizabeth	Md.
Bates, Ward Pendleton	Md.	A.B. 1939, Hartwick College	
A.B. 1939, Trinity College		Beach, David Jerome	Md.
Bathe, Orville Houston	D.C.	Beach, George R.	Va.
A.B. 1948, Yale University		Beach, Kenneth Herbert	Ohio
Bathory, Joseph Patrick	Ill.	Beach, Lillian Estelle	Va.
Batkin, Josephine	N.Y.	Beacham, Samuel Timothy, Jr.	D.C.
Batley, Beverley Anne	Va.	Beahon, Louise Dolores	N.Y.
A.B. 1949, The George Washington University		A.B. 1945, Nazareth College	
Batson, Clifton Jenks	N.C.	Beale, Edgar Joseph	D.C.
Batson, Donald Purdy	D.C.	Beale, Thomas William, Jr.	Ky.
Batson, Russell Dean	D.C.	Beall, Harry Spurgeon	Md.
Battani, Victor	Calif.	Beall, Hazel Rachel	W.Va.
Batten, Hugh Nash	W.Va.	Beall, John Ninian, Jr.	D.C.
Battin, Barbara Frances	Mont.	Bean, Henrietta Mae	Mont.
Battin, James Franklin	Mont.	Bear, Elwood Leroy, Jr.	Va.
Battista, Dominic Paul	Pa.	Bear, Richard Warfield	Va.
Battle, Frederick Hugh, Jr.	Va.	Bear, Robert Hardy	Va.
Batzel, Ellis Eugene	Pa.	Beardmore, Walter Harvey	Md.
Baucom, Howard Heath	D.C.	Beardsley, James Henry	N.Y.
Bauer, Celeste	D.C.	Bearss, Edwin Cole	Mont.
Bauer, Frederick Albert	D.C.	B.S. 1949, Georgetown University	
Bauer, Hugh Bernard	N.J.	Beasley, Channing Ernest	Ill.
Bauer, John Joseph	Mass.	Beasley, Clarence Burroughs	N.C.
Ph.B. 1925, Brown University		Beasley, Derwood Marice	Tex.
Bauer, Joseph Tucker	Tenn.	Beasley, Jess Lee	Va.
Bauer, Mary Graybill	Md.	A.B. 1936, Phillips University	
Bauersmidt, George William, Jr.	Md.	M.S. 1941, University of Oklahoma	
Bauers, Frank William, Jr.	Tex.	Beasley, Naomi Hubert	Va.
Baughman, Kenneth Own	Va.	B.S. 1940, Stephen F. Austin State College	
Baughman, Pamela Ruth	Md.	Beattie, Edward James	D.C.
Bauknight, William Cooper, Jr.	D.C.	Beattie, Joan Taylor	Va.
B.S. 1942, University of Virginia		Beatty, Alta M.	D.C.
Baum, Norman	Pa.	Beatty, Dorothy Marie	Md.
A.B. 1948, Bucknell University		B.S. 1944, Towson State Teachers College, Maryland	
Baum, Stanley Harold	D.C.	Beatty, Eleanor	D.C.
Bauman, Carl Robert	S.D.	A.B. 1943, Bryn Mawr College	
Baumann, Richard Joseph	D.C.	Beatty, George Calvin	Va.
Baumann, Edward Norman Ralph	N.Y.	Beatty, Harry Bartton	Va.
Baumann, Robert Coile	Va.	A.B. 1948, The George Washington University	
Baumann, Robert Gustav	D.C.	Beauchamp, Gerson Eli	D.C.
B.S. 1947, University of North Carolina		A.B. 1943, University of Puerto Rico	
Baumgardner, Alice Miles	Va.	Beaver, Carol Westbrook	D.C.
A.B. 1948, Mary Washington College		Beavers, Anna Manning	Vt.
Baumgardner, Fanning Miles	Va.	B.S. 1943, Radford State Teachers College, Va.	
B.S. 1943, Virginia Polytechnic Institute		Beavers, Virginia Lee	D.C.
Baumgarten, Stephen Harvey	N.Y.	Bechtold, Royal Arthur	Ind.
Baumgartner, Jack Edward	D.C.	B.S. 1948, Indiana University	
Baumboltz, Herman	D.C.	Bechtoldt, Cletus Joseph	Ill.
Bauroth, Leonard Arthur	D.C.	Beck, Herbert Valentine	Va.
Bausch, Robert Lee	D.C.	Beck, Hugo Michael	D.C.
Bausell, Charles William	Mo.	Beck, Iris Erma	Minn.
Bausell, Martha Elizabeth	Md.	Beck, John Albert	Mo.
	D.C.	A.B. 1949, University of Tulsa	



Beck, John Edward	Iowa	Beigel, Robert Joseph	Md.
B.S. 1948, The George Washington University		Beilstein, Christian William	D.C.
Beck, John William	Pa.	Beimford, Louis A.	Ohio
Beck, Mary Elizabeth	Va.	B.S. 1948, Miami University	Va.
Beck, Orville Lee	Calif.	Beiro, Alexander Aloysius	R.I.
Beck, Roberta Laura	N.J.	Bekier, Jennie Elizabeth	Md.
Becker, Eugene Joshua	N.Y.	Belcher, Francis Charles	D.C.
Becker, Joseph	D.C.	Belew, Raymond Fulton	S.C.
Becker, Joseph Agula	D.C.	Belk, Harry Clinton	
Becker, Martin Stanley	D.C.	A.B. 1943, Wofford College	N.Y.
Becker, Paul Erdman, Jr.	Conn.	Bell, Alfred Michael	
B.S. 1938, United States Naval Academy		B.S. 1949, Niagara University	Va.
Becker, Robert Raymond, Jr.	Md.	Bell, Brian	
Beckham, Caroline Walter	S.C.	A.B. 1949, Washington and Lee University	Va.
A.B. 1946, University of South Carolina		Bell, Charles William	Md.
Beckler, David Zander	Va.	Bell, Colley Wood, Jr.	
B.S. 1939, University of Rochester		A.B. 1947, Princeton University	Va.
LL.B. 1943, The George Washington University		Bell, Daniel Harry	D.C.
Beckler, Seymour	D.C.	Bell, David Eugene	Ohio
Beckman, Gordon Walter	N.Y.	Bell, Edward Leroy	
Beckman, Robert Francis	D.C.	B.S. in M.E. 1946, Illinois Institute of Technology	Mich.
Beckman, Seymour Ames	N.Y.	Bell, Ester Stuart	Utah
Beckner, Charles Douglas	Va.	Bell, Eugene Glen	Va.
Beckwith, Marion Casey	Md.	Bell, Forrest Horatio	Ala.
B.E.E. 1948, Rhode Island College of Education		Bell, Frances Louise	
Beckwith, Thomas Larson, Jr.	N.J.	B.S. in Ed. 1938, University of Alabama	D.C.
Becraft, Clarence Edwin	Md.	Bell, George Brooker	
Bedell, Donald Williams	D.C.	B.S. 1936, United States Naval Academy	D.C.
A.B. 1948, DePauw University		Bell, Gerald Irwin	Va.
Bedell, Rachel Gillen	D.C.	Bell, Ivan Francis	D.C.
Bedient, Harold Arthur	Ill.	Bell, James Malone	
Bednarz, Stanley Peter		A.B. 1945, University of California	Utah
Beebe, John Elliott, Jr.	Kans.	Bell, Jay Richard	D.C.
A.B. 1937, University of Wichita		Bell, Jean Alice	Va.
Beebe, William Bovell	D.C.	Bell, Joseph Edison	D.C.
A.B. 1946, The George Washington University		Bell, Joseph Thomas	D.C.
Beebe, William Dow	Va.	Bell, Katherine Ann	Md.
Beecher, John Joseph Michael	Md.	Bell, Mary Lou	Va.
A.B. 1939, University of Pennsylvania		Bell, Patricia Nan	D.C.
Beecher, Virginia Brian	Va.	Bell, Rollin Meredith	Va.
Beeman, Jean Marjorie	Md.	Bell, Walter Fuller, Jr.	Md.
A.B. 1946, University of Richmond		Bell, William Salisbury	D.C.
Beeny, Robert Eugene	Ky.	Bell, William Warren	
Beer, Goldie	Pa.	A.B. 1949, Haverford College	D.C.
Beers, John Sturges	D.C.	Bellak, Joseph Michael	D.C.
Beers, Stephen Lee	Md.	Ballamah, Frederick Joseph	
Beery, Ronald Dale	D.C.	A.B. 1949, The George Washington University	Ohio
Beese, Edward Thomas	Oreg.	Bellamy, William Edward	N.Y.
Befacchia, Romolo Richard	Mass.	Bellardo, Michael	D.C.
Begeny, Helen Louise	Pa.	Bellas, Ralph A.	Md.
Begley, James Joseph, Jr.	Pa.	Bellerille, Robert Chambers	Va.
Begley, Joseph Thomas	D.C.	Bellomy, Bruce Ben	N.Y.
A.B. 1936, Fordham University		Belmont, Mary Louise	Va.
A.M. 1938, Columbia University		Belmore, Daniel A.	D.C.
Begnoche, Cecile Margaret	D.C.	Beloff, Abraham Philip	D.C.
B.S. 1949, St. Joseph's College		Belt, Alnora Mae	D.C.
Beh, Philip Carlisle, Jr.	Iowa	Belt, Charles Vernon	D.C.
Behan, Margaret Mary	D.C.	Belt, Lloyd Kenneth	Md.
A.B. 1938, Hunter College		Belt, Osborn S.	
A.M. 1941, Columbia University		A.B. 1943, Allegheny College	D.C.
Behane, Mary Josephine	Pa.	M.C.S. 1947, Dartmouth College	W.Va.
A.B. 1922, Seton Hill College		Beltranena, Maria-Cristina	D.C.
Behling, Warren Edward	Va.	Beltz, Joseph Francis	
Behneman, John F.	Md.	Belvin, Elizabeth	
B.S. 1949, Wilson Teachers College		A.B. 1929, Greensboro College	Germany
Behrens, Nicklas Theodore	D.C.	Belz, Eric Stuart	Oreg.
Behun, Joseph Andrew	Ohio	Bemis, Cynthia Marshall	
		A.B. 1944, Colorado College	



Bencich, Nina Libertas	D.C.	Benton, Jean Elizabeth	Md.
Bender, Janet Reba	Va.	A.B. 1940, Mount Holyoke College	
Bender, John Joseph	D.C.	A.M. 1942, The George Washington	
Bender, Marian Kay	Md.	University	
Benedict, James Thomas	Ind.	Benziger, Peter Hamilton	D.C.
Benedict, Thomas Reilly	N.Y.	B.S.E. 1949, Princeton University	
Benedict, Virginia Smith	Mont.	Beran, Irene Frances	Wis.
A.B. 1943, University of California		Berdaus, Richard John	D.C.
Beneman, Charles Henry	D.C.	Berenson, Mendelle Tourover	D.C.
A. 1944, A.M. 1947, The George		Berg, Esther Libby	D.C.
Washington University		Berg, Karl Joseph	D.C.
Bengtson, Ernest Raymond	R.I.	Berg, Louella Miller	D.C.
Bengtson, Karl Henry	N.Y.	Berg, Martin Donald	D.C.
Benit, Henry Junior	La.	Bergbom, Frank Vincent	Va.
Benjamin, James Stanley	S.C.	Bergen, Willis	D.C.
Benjamin, Robert Serell	Mich.	B.D. 1922, San Francisco Theological	
A.B. 1942, Albion College		Seminary	
Benjamin, Vernon Edgar	N.Y.	Berger, Alfred Edward	Va.
Benkert, Eva Elli	Md.	B.B.A. 1940, College of the City of	
Benn, Edna Merle	Va.	New York	
Benn, John Davis, Jr.	Va.	Berger, Arnold Irving	D.C.
Benner, Barbara Louise	Va.	Berger, Arthur Joseph	Pa.
Bennet, Geoffrey Carr	Colo.	A.B. 1948, Bucknell University	
B.A.S. 1946, University of California		Berger, Bernard Nelson	D.C.
at Los Angeles		Berger, Florence Bernice	D.C.
Bennet, Joseph Campbell, Jr.	Va.	Berger, Larry Jerold	D.C.
Bennett, Aileen Farmer	D.C.	Berger, Robert	Va.
B.S. 1941, Mary Washington College		Berger, Samuel Morris	Pa.
Bennett, Anne Rutherford	Va.	Berger, Stanley Elliott	D.C.
A.B. 1939, Goucher College		Berglund, Ralph Vincent	Minn.
Bennett, Barbara Dorcus	N.C.	A.B. 1942, Concordia College	
Bennett, Barbara Jeanne	Md.	Bergman, Melvin John	Va.
Bennett, Betty Ann	D.C.	Bergman, William Hunter	D.C.
Bennett, Harry Bates	D.C.	Bergmann, Frederick Louis	D.C.
Bennett, Joan Kathleen	Pa.	A.B. 1937, Washburn College	
Bennett, Joseph Dickinson	Ark.	A.M. 1939, State College of	
B.S. 1949, University of Arkansas		Washington	
Bennett, Kenneth Chester	Va.	Bergmann, Robert T.	Md.
Bennett, Kenneth Melvin	Va.	B.S. in E.E. 1943, University of	
Bennett, M. Jeanne	Md.	Missouri	
B.S. 1946, University of Maryland		Bergstrom, Roger Heaner	Md.
Bennett, Milton Orene	Va.	Berish, Robert Martin	Pa.
Bennett, Nelson	D.C.	Berkan, Elvera Pfister	Va.
Bennett, Ralph Berry	D.C.	Berkan, Leonard L.	N.Y.
Bennett, Richard L.	D.C.	B.S. 1949, The George Washington	
Bennett, Robert Laster	Md.	University	
Bennett, William Batchelder	Miss.	Berkey, Josephine Ann	D.C.
B.S. 1935, University of New	Va.	A.B. 1931, Indiana University	
Hampshire		Berkman, Irene Lee	Fla.
A.M. 1936, Ph.D. 1941, Louisiana		Berkner, Patricia Ann	Md.
Southern University		Berl, Mildred Elliott	D.C.
Bennsky, George Michael, Jr.	D.C.	Berlin, Jerome Irwin	Va.
Benoist, Marie L.	D.C.	Berliner, Hans Jack	D.C.
Benson, Arthur Leonard	N.J.	Berlinsky, Louis	D.C.
A.B. 1933, Lehigh University		Berman, Gloria Victoria	D.C.
Benson, Carol Eliason	Va.	Berman, Harold John	D.C.
Benson, David Ross	Ala.	B.S. 1948, Georgetown University	
Benson, Donald Darrell	Nebr.	Berman, Hyman	N.Y.
Benson, Floyd W.	Calif.	A.B. 1949, The George Washington	
A.B. 1933, Stanford University		University	
Benson, Harriette Miller	Va.	Berman, Jack Donald	Ill.
Benson, Jacques M.	Utah	Berman, Milton	D.C.
B.S. 1947, Utah State Agricultural		Berman, Ruth Florence	D.C.
College		Berman, Stanford Warner	D.C.
Benson, Lelamae	N.D.	Bernard, Eugene Louis	D.C.
Benson, Margaret Brown	Md.	A.B. 1949, Ohio State University	
A.B. 1940, East Carolina Teachers		Bernard, Kenneth	Fla.
College, N. C.		B.S. 1922, Massachusetts Institute of	
Benson, Virginia B.	Va.	Technology	
A.B. 1936, College of William and		Berne, William	D.C.
Mary		Berner, John Thomas	Pa.
Benson, Wilbur Earle	D.C.		
Benson, William Ewell	D.C.		



Bernet, Howard Cavender	D.C.	Bevelacqua, Charles Angelo	Pa.
B.S. 1929, United States Naval Academy		B.S. in M.E. 1946, University of Pittsburgh	
Bernot, Joseph John	Pa.	Bevins, Roswell Morton	Vt.
Bernstein, Charles Nathaniel	D.C.	Bevitt, William Dealtry	Md.
B.S. 1940, College of the City of New York		Beyen, Karel Herman	Md.
Bernstein, Michael Joseph Jesse	N.Y.	LL.B. 1943, University of Utrecht, Netherlands	
LL.B. 1930, LL.M. 1946, New York University		LL.M. 1948, University of Amsterdam, Netherlands	
Bernstein, Miriam Hannah	N.Y.	Beyer, Elnora M.	Mich.
A.B. 1949, Mount Holyoke College		A.B. 1949, University of Michigan	
Bernstein, Norman	D.C.	Beyer, Joan Florence	N.J.
Bernstein, Paul	D.C.	Bezdecki, Rita M.	D.C.
Bernstein, Philip Harris	D.C.	Bialek, Stanley Morris	D.C.
Bernstein, Stanley Bertram	N.Y.	Bialek, Teddy	D.C.
Berrett, Malcolm Ernest	Md.	Bibb, Lawrence Clayton	Va.
Berrio, Esther Maria	D.C.	A.B. 1948, The George Washington University	
Berry, Arland Norwood	Md.	Bibolet, Roland Henry	Ariz.
Berry, Barbara	Mich.	A.B. 1942, University of Arizona	
A.B. 1944, Oberlin College		Bice, Earl Russell, Jr.	D.C.
Berry, Charles Waitzel	D.C.	Bie, Rita Marie	Fla.
Berry, Frederick Hamer	Md.	Biedebach, Herbert Edward	Calif.
B.S. 1943, M.F. 1944, Duke University		Biegel, Mark M.	D.C.
Berry, Hugh Gordon	D.C.	A.B. 1944, The George Washington University	
Berry, Jack Aloisius	Ill.	Bierly, Jack Stealton	D.C.
Berry, Margaret Virginia	Del.	A.B. 1941, M.Ed. 1942, University of Maryland	Md.
Berry, Ovie Lee	D.C.	Bierly, Robert Foust	
Berry, Robert Hahn	Ohio	A.B. 1943, University of Maryland	D.C.
Berry, Sally Louise	W.Va.	Bierman, Daniel Jacob B.	Va.
Berryman, Richard Blaxton, Jr.	N.Y.	Bierman, George Raymond	Md.
Bersey, Joseph Bernard	N.J.	Bierman, Virgil Robert	Va.
Berson, Harold Ralph	Nev.	Biersack, Gerta Emily	
A.B. 1949, The George Washington University		M.D. 1944, University of Frankfurt, Germany	
Berthold, Heinz Alfred	Ind.	Bigelow, Robert Orville	Md.
Berthrong, Raymond	D.C.	B.S. 1949, University of Maryland	
B.S. 1938, United States Naval Academy		Bigge, William Russell	D.C.
Bertine, Harry Marion, Jr.	Pa.	Biggs, Joseph Daniel	D.C.
Bertola, Hugo John	Mich.	A.B. 1940, East Carolina Teachers College	
A.B. 1948, University of Michigan		Bigler, James Campbell	Md.
Bertolini, Ernest Paul	D.C.	B.S. 1932, United States Naval Academy	
Bertram, Clarence Russell	D.C.	J.D. 1942, The George Washington University	
Berulis, Martha M.	D.C.	Bikowski, John Adam	Pa.
Besdine, Lillian	D.C.	Bildahl, Wayne Lawrence	D.C.
A.B. 1929, Hunter College		Bildman, Allene	D.C.
A.M. 1948, The George Washington University		Biles, Patricia Norma	D.C.
Besier, Rudolph	N.Y.	Bilinski, Chester Frank	Va.
Besoner, Jacob	D.C.	Billar, Charles Mayo	N.Y.
Besosa, Sheridan Esteban	D.C.	Billar, Paul Stanley	Pa.
Bess, Robert William	W.Va.	Billarbeck, Wilfred Jerome	D.C.
Best, Harold Lloyd	N.Y.	Billick, Eugene Wycoff, Jr.	Md.
A.B. 1949, The George Washington University		Billings, Nancy Deuel	D.C.
Best, Lee James	N.C.	Billingsley, Betty Ann	Ill.
A.B. 1919, Duke University		Billingsley, Charles Marion	S.D.
Best, Walter Charles	Va.	Billingsley, Patrick Paul	
Bethel, Marion Ann	D.C.	B.S. 1948, United States Naval Academy	
Betiendorf, Valerie C.	Md.	Billingsley, Ruth Louise	Pa.
Bettens, Warren Joseph	D.C.	Bilmanis, Ceronis	D.C.
B.S. 1935, United States Naval Academy		Bilohlavek, Andrew John, Jr.	Pa.
Betzler, John Richard	Va.	A.B. 1949, The George Washington University	
Beuchert, George Henry, Jr.	Va.	Bilski, Albert Stanley	Pa.
B.S. in B.A. 1946, LL.B. 1949, Georgetown University		Bilski, Clement Floyd	Pa.
Beum, Corlin O., Jr.	Ohio	Binckley, James William	Md.
B.I.E. 1938, Ohio State University			



Binder, Albert	D.C.	Black, Garland Cuzorte, Jr.	N.Y.
Binder, Jack William	D.C.	B.S. 1943, United States Merchant Marine Academy	
Binder, Samuel Henry	Iowa	Black, George LaDow	Md.
Bing, Rachel Jean	Va.	B.S. in E.E. 1946, University of South Carolina	
A.B. 1948, Wellesley College	Tex.	Black, Lora Street	Va.
Binger, Margaret K.		B.S. in Ed. 1924, South Illinois University	
B.S. 1947, Hardin College	N.Y.	Black, Richard McKeon	D.C.
Bingert, Georgina J.		Black, Robert John	Ill.
LL.B. 1938, Washington College of Law	Mass.	B.S. 1949, Colorado School of Mines	Va.
Binney, George Thomas	Ky.	Black, William Lewis	D.C.
Binzel, Gloria Miller	Conn.	Blackburn, Donald D.	
Biram, James Raymond		B.S.Ad. 1938, University of Florida	Md.
B.E.E. 1948, Yale University	D.C.	Blackburn, Gregory James	Md.
Bird, James Frederick		Blackett, Gustav	D.C.
A.B. 1949, The George Washington University	D.C.	Blackford, Virginia Lee	D.C.
Bird, James Roland		B.S. 1949, American University	D.C.
Bird, Richard Walter	D.C.	Blackmore, Helen Maude	
Bird, William Lawrence	D.C.	A.B. 1949, The George Washington University	
Bird, William Potter	Va.	Blackstone, Harry Gregory	D.C.
A.B. 1943, Yale University		Blackwell, Albert Turner	Md.
Birdsell, John Edmund	Md.	A.B. 1948, University of Maryland	D.C.
A.B. 1945, LL.B. 1947, The George Washington University	R.I.	Blackwell, Robert Lee	D.C.
Birmingham, Alfred Nelson		Blackwood, Arnold	
Birmingham, Henry Patrick		B.S. 1938, Wilson Teachers College	Iowa
B.S. in Ed. 1942, Rhode Island College of Education	D.C.	Blackwood, Freda C.	Va.
Birmingham, Thomas Harlan	Ohio	Bladen, Marvin Monroe	N.Y.
Birnbaum, Eugene Albert	N.Y.	Bladegroen, Robert John	
Birnbaum, George		A.B. 1942, LL.B. 1947, Cornell University	D.C.
A.B. 1941, Brooklyn College	D.C.	Blaesser, Willard William	
M.S. 1949, The George Washington University		B.S. 1934, A.M. 1940, University of Wisconsin	Mo.
Birnbaum, Henry	N.Y.	Blaeuer, Channing Davis	Ind.
A.B. 1945, A.M. 1946, New York University		Blair, Donald DeWitt, Jr.	D.C.
Birnbaum, Irving	D.C.	A.B. 1949, Wabash College	D.C.
A.B. 1938, Brooklyn College	D.C.	Blair, James Colbert	D.C.
Birner, Ernestine B.	Md.	Blair, Kay Reilly	
Biro, Mary Theresa		Blair, Thomas Calvin	Md.
Birbright, Adnah Judge		B.S. 1947, University of Michigan	Colo.
B.S. 1935, The George Washington University	Va.	Blake, George Francis	D.C.
Bisbee, Donald Mayo	N.Y.	Blake, Geraldine A.	D.C.
Bisen, Ruth		Blake, Harry Thomas	D.C.
B.S. 1948, Brooklyn College		Blake, Martin	
Bisgyer, Edgar Maynard	Md.	B.S. 1947, Northeastern University	N.Y.
Bishop, Alan Grayson	Va.	Blake, O. William	
A.B. 1948, The George Washington University		A.B. 1949, M.S. 1949, Syracuse University	Va.
Bishop, Christine Elizabeth	Miss.	Blake, William Joseph, Jr.	D.C.
Bishop, George Edward	D.C.	Blake, William Lucius	
A.B. 1943, The George Washington University		A.B. 1949, The George Washington University	Pa.
Bishop, Iris Mildred	Mo.	Blakemore, George Jefferson, Jr.	
Bishop, Ruth Cox	W.Va.	A.B. 1949, The George Washington University	Mich.
A.B. 1947, Davis and Elkins College	D.C.	Blakemore, James Russell	
Biskar, Aaron	D.C.	B.S. 1934, University of Illinois	Minn.
Biskar, Marvin	Md.	Blakemore, Lemuel Anthony	
Biskin, Allen Raymond		B.S. 1940, University of Minnesota	N.C.
B.S. 1950, University of Maryland	D.C.	Blanchard, Charles Fuller	
Bitter, John William	Minn.	A.B. 1947, LL.B. 1949, Duke University	
Bittermann, Kathleen Studdart	Ky.	Blanchard, Earl Harrison	Vt.
Bizot, Hyland		Blanchard, Millard Lewis	N.H.
B.S. 1934, University of Kentucky	Minn.	Blanchett, Carl	N.J.
Bjorklund, Otto Edward	N.Y.	B.S. 1944, United States Coast Guard Academy	
Bjorlo, Einar	Fla.	Blanchette, Mary Anne	D.C.
Blachly, Charles Howard		Blanck, Eleanor Rebecca	D.C.
B.S. 1949, American University	Pa.		
Black, Cameron Arthur	D.C.		
Black, Elizabeth Rosalie			



Blank, Eugene	Md.	Bloom, Jerome Philip	Md.
A.B. 1948, Johns Hopkins University		B.S. 1947, Wayne University	N.M.
Blankenheimer, Bernard	N.Y.	Bloom, John Porter	Pa.
A.B. 1941, Brooklyn College		Bloom, Roger Paul	Va.
Blankenship, James Delbert	Mo.	Bloomington, Gene Guy	Va.
Blankenship, Leroy Clifton	D.C.	Bloomquist, Jean Hall	Pa.
Blankenship, Mildred Louise	D.C.	Blough, Glennor Ethel	D.C.
Blanton, Virginia Booth	Va.	Blubstein, Seymour	D.C.
Blanz, James McCauley	D.C.	Blue, John Frederick	
A.B. 1949, Bowdoin College		B.S. 1942, North Carolina State	
Blaser, John Frank	N.Y.	College	D.C.
Blatchford, Walter Larned	Ill.	Bluestone, Herman	D.C.
B.S. 1933, United States Naval		Blum, Bernard Marvin	D.C.
Academy		Blum, Daniel	
Blatt, Ethel D.	Va.	B.M.E. 1944, College of the City	
Blatt, Joseph Duv	Va.	of New York	D.C.
B.S. in C.E. 1935, College of the		Blum, Joseph	
City of New York		B.S. 1940, College of the City of	
Blau, Gerda Johana	D.C.	New York	
Dr. Jur. 1934, Vienna University,		A.M. 1948, The George Washington	
Austria		University	D.C.
Ph.D. 1942, London School of		Blum, Royal Isaac	N.J.
Economics		Blumberg, Beverly Gayle	
Blau, Paul Raoul	D.C.	A.B. 1944, University of Southern	
Blazek, Dorothy M.	Pa.	California	N.J.
Blechman, Ann Beatrice	D.C.	Blumberg, Marvin	D.C.
Blechman, Martin George	N.J.	Blume, Adelaide	Ohio
B.S. 1949, The George Washington		Blumenfeld, Isadore David	
University		B.S. in E.E. 1949, Case Institute	
Bleckley, Viola Prudence	Ga.	of Technology	N.Y.
A.B. 1940, Piedmont College		Blumenkopf, Norman	
Bledsoe, Samuel Carter	Md.	A.B. 1941, Brooklyn College	Okl.
Bleecker, David	N.Y.	Blumer, Emily Selma	D.C.
Blessing, Edwin Hoffer	Va.	Blute, William Augustine	Va.
B.S. 1936, Dickinson College		Boak, David Gordon	
Blessing, Melvin J.	N.Y.	A.B. 1947, University of North	
B.C.E. 1940, Cornell University		Carolina	D.C.
LL.B. 1949, Georgetown University		Boak, Mary Frances	Va.
Blevins, Eugene Winford	Tenn.	Boarman, William Eugene	Ohio
A.B. 1942, King College		Bobo, Carl E., Jr.	D.C.
Blevins, Hansel Herbert	Tenn.	Boche, Donald John	Md.
Blitch, Michael Gordon	Fla.	Bochenek, Benjamin Herman	
Blitman, Samuel	D.C.	B.S. 1947, University of Maryland	D.C.
A.B. 1931, College of the City of		Bochenski, Feliks Gustaw	N.Y.
New York		Bock, Eugene William	Kans.
A.M. 1937, Columbia University		B.S. 1949, Texas Christian University	
Blitzstein, Ethel	N.Y.	Bock, Robert Leroy	
Bloch, Joyce Edna	D.C.	A.B. 1948, University of Kansas	D.C.
Bloch, Natalie Ebin	D.C.	Bockoven, Thomas Sanford	Fla.
A.B. 1943, Smith College		Bodden, Robert Clark	Ala.
Bloch, Robert Oakleigh	Nebr.	Boddie, Charles Edwin	Ill.
A.B. 1949, The George Washington		Bodecker, George William	
University		B.Ed. 1931, Western State Teachers	
Block, Faith Florance Jones	D.C.	College	
Block, Frederick Laurence	N.Y.	B.S. 1938, M.S. 1939, University of	
Block, Harold Stanley	Mo.	Illinois	Pa.
B.S. in E.E. 1944, University of		Boden, Clyde Daniel, Jr.	
Missouri		A.B. 1947, Franklin and Marshall	
Block, Huntington Turner	D.C.	College	Pa.
A.B. 1948, Princeton University		Bodinsky, Helen	Va.
Blodgett, John Quigg	R.I.	Bodmer, Catherine Phillips	
B.S. 1943, Georgetown University		B.S. 1935, Mary Washington College	Tex.
Blodgett, Norman Stack	D.C.	Boehl, Maurice Gohlke	
B.S. 1944, Worcester Polytechnic		A.B. 1949, Agricultural and Mechanical	
Institute		College of Texas	N.Y.
Bloedorn, Helen	D.C.	Boehlert, Jessie Clara	D.C.
Blondell, Jeanne Elizabeth	Md.	Boehne, Charles Heitmuller	D.C.
Blondes, Leonard Saul	D.C.	Boesch, David Swaine	Va.
Bloom, Ann Miller	Calif.	Boesch, Pauline Frappier	
Bloom, Carrington Murray	D.C.	B.E. 1927, Illinois State Normal	
Bloom, Charles Clifton	Pa.	University	D.C.
Bloom, Eli Henry	Md.	Boesch, Ruth Elinor	D.C.
		Boettcher, Henry Joachim	



Bogan, Joseph Borrows, Jr.	Md.	Bonnema, Jean Marie	D.C.
Bogan, Patricia Alice	D.C.	Bonner, Josephine Elizabeth	Va.
Bogdanoff, Isidore	N.Y.	Bonnet, Walter	Va.
A.B. 1943, The George Washington University		B.S. 1932, University of Maryland	
Bogema, Stuart Chapman	D.C.	Bonnett, Leo Victor	Ill.
Bogen, William	D.C.	A.M. 1942, The George Washington University	
A.B. 1949, The George Washington University		Bonney, Charles Lee	Va.
Bogley, William Tuckerman	D.C.	Bono, Evert Lee, Jr.	D.C.
Bogner, Robert William	Va.	Bonos Loretta Eleanor	D.C.
Bogorad, Abraham	N.Y.	Bonvillian, William Doughty	Tenn.
B.S. 1941, College of the City of New York		A.B. 1939, United States Naval Academy	
Bohan, John Patrick	Pa.	Bonwit, Kenneth Stanley	D.C.
Bohan, Joseph James	Pa.	Booher, Patti Yvonne	D.C.
Bohon, Robert Marion	D.C.	Booker, Lewis Albert	Va.
Bohonis, John	Md.	A.B. 1949, The George Washington University	
Bohorfoush, Anthony George	D.C.	Bookman, Irving	N.J.
Bohrer, Doris Sharrar	Va.	A.B. 1940, New York University	
Boise, James William	D.C.	Boone, Betty Jane	Ind.
Boissonneault, Lorette Lucy	D.C.	A.B. 1948, Ball State Teachers College, Ind.	
Boisvert, René Peter	Conn.	Boone, Marjorie Anne	D.C.
Boisvert, William Edward, Jr.	D.C.	A.B. 1945, Northwestern University	
A.B. 1947, University of Utah		Boop, Mahlon Ellwood	Pa.
Boklund, Gustaf Leonard	D.C.	Boorman, Mira Noyes	D.C.
Boland, Timothy Eugene	Pa.	A.B. 1947, Wells College	
Boldt, John Henry	Pa.	Boorman, Robert Henry	D.C.
Bolin, Edgar Lee	Ga.	Booros, James Louis	D.C.
Bollenbacher, Katharina	D.C.	Booton, Robert Edward	Iowa
A.B. 1934, A.M. 1936, University of Arkansas		Bor, Robert M.	D.C.
Bollie, Ernest John	Iowa	A.B. 1942, New York University	
Bollinger, Howard Moore	Md.	LL.B. 1947, Columbia University	
B.S. 1943, M.S. 1947, Massachusetts Institute of Technology		Borchardt, Owen Franklin	D.C.
M.B.A. 1948, Harvard University		Borcharding, Earl William	Wis.
Bolt, Robert	N.Y.	A.B. 1949, The George Washington University	
Bolton, Melissa Dement	Md.	Borcynski, Henry Ferdinand	Conn.
Bolton, Phyllis Lilian	Mass.	Borders, Glenn Houghton	D.C.
A.B. 1949, Bryn Mawr College		Borel, Paul Arnold	Va.
Bolton, Thomas Meredith	N.C.	B.S. 1934, University of Kansas	
B.S. 1948, Wake Forest College		M.B.A. 1938, Harvard University	
Bolton, Vivian Reynolds	Pa.	A.M. 1944, Columbia University	
Boltz, Donald Arthur	S.D.	Borelli, Francis Aristide	D.C.
Bon, David McCulloch	D.C.	Borengasser, Rosalie Elizabeth	Ark.
Bon, Franklin Albert	D.C.	Borges, Louis Joseph, Jr.	Pa.
A.B. 1948, College of William and Mary		B.S. 1943, Pennsylvania State College	
Bonaminio, Alberto Domenico	Ohio	Boriotti, Joseph	N.Y.
Bonanni, Louis John, Jr.	Pa.	Borkowski, Walter Aloysius	N.J.
Bonanno, Antonio Charles	D.C.	Borland, Eugene Victor	D.C.
Bonavitch, George Michael	Pa.	Bornmann, Carl Louis	D.C.
A.B. 1949, The George Washington University		Bornstein, Irwin Seymour	N.Y.
Bond, Gorman Morton	Md.	Boroughs, Lewis Edward	N.C.
Bondareff, Erwin Allen	D.C.	LL.B. 1948, The George Washington University	
Bondareff, William	Md.	Borregard, Roger	Md.
Bondy, Malcolm Edward	D.C.	Bortner, Jeffrey Clair	Pa.
A.M. 1945, Brooklyn College		Bortz, Clara Victoria	Pa.
Boney, Richard Francis	D.C.	Borysko, Emil	D.C.
Bonham, Jane Eldon	Va.	A.B. 1940, Brooklyn College	
Bonhotel, Maude Ball	Conn.	Borzilleri, John Philip	N.Y.
Bonilla, Lempira Eusebio	D.C.	Borzilleri, Paul Thomas	N.Y.
Bonis, Austin Jerome	N.Y.	Bosin, Leonard Albert	Va.
B.S. 1933, College of the City of New York		Bosin, Sylvia Estelle	Va.
Bonkowski, Adam Stanley	Md.	Bosman, Joan Frances	N.Y.
Bonnell, Elwyn Thomas	Mich.	Bosmans, Thomas Constantinas	D.C.
A.B. 1942, Michigan State College		Bostick, James Lynn	D.C.
Bonnell, Mabel Angela	Mont.	Bostick, Jewel Meeks	Miss.
Bonnell, Virginia Yvonne Crosswhite	Mich.	Bostwick, Don Phillip	Iowa
A.B. 1943, University of Wichita		Boswell, John Gordon	Md.
		Botdorf, Robert Jean	D.C.



Boteler, Charles Magdefrau, Jr. A.B. 1948, Haverford College	D.C.	Bowman, Leslie Eugene Bowman, Robert Tschanen A.B. 1948, Miami University	S.D. Md.
Botsford, Hannah Leah A.B. 1930, Rockford College	D.C.	Bowman, Thomas Edward	Md.
Bott, Alan	Pa.	Bowron, Francis Lloyd	Wyo.
Bottenfield, Richard Joe	Pa.	Bowyer, Wesley Orton	Va.
Bottomley, Helen Mae	Mass.	Boyars, Carl	Md.
Bottoms, John Watson B.S. 1935, United States Naval Academy	Fla.	B.S. 1940, College of the City of New York	
Bottone, Patrick Francis	D.C.	Boyce, David Barry	Md.
B.S. 1947, Seton Hall College		Boyd, Alfred Rowe	Md.
Bottorf, Sara Frances	D.C.	Boyd, Frank John	Va.
Botts, Max Eugene	Ill.	Boyd, Harold Loomis	D.C.
Botz, Eugene George	Ind.	Boyd, Helen	Va.
Boudren, Mary Josephine	D.C.	Boyd, Tobias J.	Pa.
Bouffard, Nelson J., Jr.	D.C.	Boyd, William Walker, Jr.	D.C.
Boulay, Rene Andre	Mass.	Boyer, Delos White	Pa.
Bouldin, Isabel Spotswood	Va.	Boyer, James Orval	Mass.
Bounous, Jenny Alice	D.C.	Boyer, Joan Zelda	Md.
A.B. 1945, The George Washington University		Boyer, John Alton	Md.
Bourbon, August James	Md.	Boyer, Patricia Anne	Pa.
Bourdon, Edouard	Belgium	Boylan, Robert Thomas B.S. 1947, University of Pennsylvania	Va.
Docteur en Droit, 1938, Liege University, Belgium		Boylan, Vincent DePaul	
Bourget, Marie Paule Irene	Canada	B.B.A. 1940, Manhattan College	Md.
Bouril, Ruth Clara	Ill.	Boyland, Paul Maurice	N.Y.
B.S. 1949, Illinois Institute of Technology		Boyle, Barbara Alice	Wis.
Bourjaily, Monte F., Jr. A.B. 1943, St. John's College, Md.	D.C.	Boyle, Betty Jean	Pa.
Bourke, Anne Rosaleen	Md.	Boyle, Charles Aloisious	D.C.
B.S. 1937, University of Maryland		Boyle, John III	N.Y.
A.M. 1949, The George Washington University		Boyle, John Alexander	D.C.
Bouscaren, Nancy Margaret	D.C.	Boyle, Neal Joseph	D.C.
Bouton, Kathleene Jefferson	Va.	Boyle, Peter William	D.C.
Bovee, Howard Ralph	Vt.	Boyles, John Harrison	
Boward, Camilla Angle	Md.	A.B. 1944, St. Bonaventure College	
B.S. in Ed. 1941, University of Maryland		LL.B. 1948, Georgetown University	Md.
Boward, Lawrence Mark	Md.	Bozarth, Elmer Neal, Jr.	Mich.
Bowen, Donald Eugene	Mont.	Bozek, John Richard	Md.
Bowen, Lois Green	D.C.	Bozievich, Antoinette	N.Y.
A.B. 1935, American University		Bozurt, Mehmed Adnan	N.D.
Bowen, Thales, Jr. A.B. 1949, The George Washington University	D.C.	Braaten, Norris Oberlin	D.C.
Bowen, Verna Sarah	Utah	Bracken, Anna Engle	
Bower, James VanBuskirk	Pa.	B.S. 1948, University of Maryland	Tex.
Bower, Robert Sharon	Wash.	Bracken, Jim Tom	
A.B. 1929, Stanford University		A.B. 1948, Hardin-Simmons University	Va.
Bowers, Arthur Lewis	N.Y.	Bracken, Leath Mason	Va.
B.E.E. 1948, College of the City of New York		Brackett, Lois Anne	N.J.
Bowers, Edwin Ralph	Va.	Braddock, Harry Elton	
B.S. 1948, Virginia Military Institute		B.S. 1945, United States Naval Academy	N.J.
Bowers, Richard Simpson	D.C.	Braddock, John Thomas	D.C.
Bowers, Robert Mahoney	Va.	Braddy, Robert Edgar, Jr.	
Bowler, John Andrew, Jr. A.B. 1949, The George Washington University	D.C.	B.S. 1927, United States Naval Academy	Va.
Bowles, Jean Frances	Md.	Bradfield, Urcell M.	D.C.
Bowles, Joseph Lockett	D.C.	Bradford, Gary Morgan	Va.
Bowlin, Ina Jane	Ohio	Bradford, Ralph Gordon	Va.
Bowling, Frances Hazel	Va.	Bradley, Anna Lou	Tex.
Bowling, Lloyd Spencer	Md.	Bradley, Bettine	D.C.
Bowman, Donald Hart	Tex.	Bradley, Carolyn Fontaine	Md.
Bowman, Emerson Ernest	Ariz.	Bradley, John Graham	Nev.
B.S. 1948, Colorado Agricultural and Mechanical College		Bradley, John Grover	Pa.
		Bradley, Richard Homer	D.C.
		Bradley, Robert Bell	
		B.S. 1948, University of Maryland	Va.
		Bradley, William McRae	Nev.
		Bradley, William Orlando	Va.
		Bradt, Joseph V.	Ind.
		Bradway, Malcolm Strode	
		B.S. in M.E. 1948, Purdue University	



Brady, George Moore, Jr. A.B. 1947, Johns Hopkins University	Md.	Breeding, Robert Burton A.B. 1944, Transylvania College	Ky.
Brady, Neal Caldwell B.S. 1947, Western Reserve University	Calif.	B.S. 1944, University of Kentucky	D.C.
Brady, Thomas Anthony	Mo.	Breen, James F.	Ohio
Bragan, Richard Larry	Md.	Breen, James Michael	D.C.
Brahin, Frederick Arnold	D.C.	Breen, Mary Margaret A.B. 1949, Catholic University of America	N.Y.
Brake, Eugene	W.Va.	Brees, Beatrice Ruth	D.C.
Braley, Gerald Neal	Md.	Breeskin, Sol Daniel	Md.
Brame, Oleta	Fla.	Brehme, Robert Woodruff	D.C.
Bramlette, Lee Clinton, Jr.	Tex.	Breier, Aaron I. B.S. 1931, M.S. 1934, College of the City of New York	N.Y.
Bramow, A. Stanley B.S. 1946, Virginia Polytechnic Institute	D.C.	Breischner, Peter	Norway
Bramow, Alvin	D.C.	Breitung, Amelia	D.C.
Branagan, Edward Francis	Md.	Brendler, Dossie Hannah	N.J.
Branch, Elizabeth Helen	Conn.	Brenman, Henry Stephen	Pa.
Brand, Albert William, Jr.	D.C.	Brennan, Edward William A.B. 1943, St. Francis College	N.Y.
Brand, John Sibley	D.C.	M.B.A. 1948, University of Pennsylvania	D.C.
Brandenburg, Virginia Allen	Ky.	Brennan, Francis Xavier	Va.
Brandenburger, Elise Ann B.S. 1949, The George Washington University	Va.	Brennan, Frederick William	Pa.
Brandenburger, Eugenia	D.C.	Brennan, George Francis	Pa.
Brandon, Ronald Dean	D.C.	Brennan, James Joseph	Pa.
Brandt, Jean	D.C.	Brennan, John Francis	Va.
Brandt, John Nicholas B.S. in C.E. 1931, University of Kansas	Mo.	Brennan, Robert James A.B. 1949, The George Washington University	Pa.
Brandt, Robert Fred B.S. 1944, M.B.A. 1949 New York University	Va.	Brennan, William Francis B.S. 1949, University of Scranton	Md.
Brann, Robert Joseph	Pa.	Brenneman, Melvin Luther	Fla.
Brant, Mary E.	Pa.	Brenner, Daniel Campbell	Md.
Brantley, Jac Vernon A.B. 1933, Howard College	Ala.	Brenner, Sonia B.S. 1936, Kansas City Teachers College, Mo.	Va.
Brantley, James Cranford B.B.A. 1947, University of Georgia	D.C.	Brentlinger, John Weeks A.B. 1948, The George Washington University	D.C.
Brantley, Walter Frederick	Md.	Breslau, Ruth Cooper B.S. 1945, The George Washington University	Colo.
Brasel, Palmyra Lavina	S.D.	Breslaw, Joseph B.S. 1946, University of Notre Dame	D.C.
Brashear, Victoria Michael	D.C.	Bresler, Clarke Sheldon	Ind.
Brashears, Helen Hoffa A.B. 1935, Western Maryland College	Md.	Bressler, Wilson Kress	N.Y.
A.M. 1939, New York University	Va.	Breuer, Alexander	D.C.
Brasington, Clayton Furman, Jr.	D.C.	Breux, Philip Westover	N.Y.
Braskamp, Anne Bernice A.B. 1949, Wilson College	D.C.	Brew, Eugene Lawrence	Md.
Brastow, Jerome Duryea A.B. 1949, The George Washington University	N.C.	Brewer, George Weldon B.S. 1933, Atlantic Union College	Va.
Braswell, Hiram Eugene A.B. 1948, University of North Carolina	N.J.	M.Ed. 1947, Boston University	N.Y.
Brauer, Walter John	Md.	Brewer, Glenna Faye	Md.
Brauner, Dorothy Caroline	Va.	Brewer, Joseph Daniel	Md.
Brauning, Carl Leonard, Jr.	D.C.	Brewer, Muriel Atwood	Md.
Brauning, Helen Jane	D.C.	Brewer, Robert George A.B. 1948, Hamilton College	Va.
Brawner, Edgar Newlon, Jr.	D.C.	Brewster, Mary Sandford	N.J.
Brawner, Selma Moody	Colo.	Breza, Edward John	Va.
Bray, Lucile Keeton	Miss.	Brice, John Eldred	D.C.
Bray, Ruth Marie	Ohio	Brice, Lawrence Etheridge, Jr. A.B. 1949, The George Washington University	Md.
Brayton, Barbara Jean	Md.	Bride, Crescent Joseph	Iowa
Brazill, Kathryn Mary A.M. 1932, Pennsylvania State College	Va.	Brideson, William Emerson	Va.
A.M. 1939, Columbia University	D.C.	Bridge, Edward William	Va.
Breach, John Olaf	D.C.	Bridge, Vivian Joan	Va.
Breach, Grace Lady	D.C.	Bridges, Harry Taylor	Va.
Breazeale, James A.	Md.	Bridges, Lillian Titus	Va.
Brecht, Harold Marvin	D.C.	Bridges, Martha Beam	N.C.
Breck, John Robert	Va.	B.S. 1940, Asheville Teachers College,	
Breckenridge, John Preston B.S. 1949, University of Arkansas			



Briggs, Francis Gifford	Ky.	Brody, Alfred Lawrence	Mass.
Briggs, James Philip, Jr.	Va.	B.S. in E.E. 1946, Northeastern University	
B.S., F.S. 1947, Georgetown University		Brody, Alvin	D.C.
Briggs, Josephine Marie	Md.	Brody, Arthur Lionel	N.Y.
Briggs, Lee	N.C.	Brody, Leonard Harry	N.Y.
A.B. 1949, Carleton College		Brody, Norman	D.C.
Briggs, Margaret Ann	D.C.	Bronaugh, Alfred Taylor	D.C.
Briggs, Raymond Westcott	Fla.	B.S. in E.E. 1930, J.D. 1949, The George Washington University	
Brigham, Erwin Risley	Va.	Bronaugh, John Reeder	D.C.
Brill, Anne Marie	Pa.	B.S. in M.E. 1947, Virginia Polytechnic Institute	
Brill, Edward Pope, Jr.	Md.	Bronstein, Max Wilfred	D.C.
Briller, Shirley Estelle	N.Y.	Brook, Robert Arnold	N.Y.
Brimer, Alan Anthony	N.Y.	Brookbank, LaMont Atwood	D.C.
Brimfield, Enid Joyce	N.J.	Brooke, Joseph Algernon, Jr.	Md.
Brimley, Ralph F. W.	N.C.	Brookley, Eunice Josephine	Md.
B.S. 1928, North Carolina State Teachers College		A.B. 1948, University of Maryland	
A.M. 1940, University of North Carolina		Brooks, Charles Granden III	Md.
Brindle, Clayton Carl	D.C.	A.B. 1947, Western Maryland College	D.C.
Brinitzer, Peter Helmuth	N.Y.	Brooks, David	N.Y.
A.B. 1949, Syracuse University		Brooks, Harrison Morton, Jr.	
Brinks, Henry Luke	Ill.	B.S. 1940, Wheaton College	W.Va.
A.B. 1948, Wheaton College		Brooks, James Foglesong	
Brinks, Jean Oliver	D.C.	A.B. 1949, Marshall College	D.C.
Brinks, Walter Joseph	D.C.	Brooks, Jefferson Davis III	D.C.
B.S. 1943, Georgetown University		Brooks, Joseph James	
Brinson, Milton Wilkerson	N.C.	B.S. 1946, Purdue University	D.C.
Brisebois, Joseph Francis	Va.	Brooks, Leroy William	Va.
A.B. 1937, LL.B. 1938, The George Washington University		Brooks, Milton Hope, Jr.	Va.
Brisl, William Murray	Md.	Brooks, Nellie Walker	
A.B. 1928, Franklin and Marshall College		A.B. 1949, The George Washington University	Vt.
A.M. 1932, Columbia University		Brooks, Phillip Austin	Kans.
Brissette, Emile Degnon	D.C.	Brooks, Phillip Henry	Va.
Brissette, Marie Alice	D.C.	Brooks, Randall	Md.
Brisset, Dorris Lawrence	Va.	Brooks, Samuel Hyman	
Brister, Orlo Francis	Va.	B.S. 1949, University of Maryland	Ohio
Bristol, Ethel Cleo	Colo.	Brooks, William Bernard, Jr.	N.Y.
Bristow, John Wesley	Calif.	Brooks, William I.	
Britt, Randolph	Md.	B.S. 1933, Brooklyn College	Va.
Britt, Severine Hansenne	Va.	Brooks, William Teller	D.C.
Britt, Theodore Cleveland	Va.	Brookshire, Helen	
Brittin, Edward Baylis	Md.	A.B. 1949, Louisiana State University	D.C.
Brittingham, Irene Catherine	Mich.	Broome, Milton Thomas	D.C.
Brittle, David Field, Jr.	D.C.	Brosnan, Theresa Ann	Vt.
Brittle, Kathryn Skaggs	D.C.	Brosseau, Reginald George	
Britton, George Henderson	N.J.	LL.B. 1931, Northeastern University	Nebr.
A.B. 1949, Miami University		Brostrup, John Oliver	D.C.
Britton, Keith George	D.C.	Brotman, Marvin Frederick	D.C.
Britton, Lewis William	D.C.	Brotzen, Frances Ridgway	
Britton, Mary Martha	Mo.	A.B. 1937, The George Washington University	D.C.
Broadbent, Frank Clifford	Md.	Brotzen, Franz Richard	
Broaddus, Maron Loula	Va.	B.S. 1950, Case Institute of Technology	La.
B.S. 1930, Mary Washington College		Broussard, Rebecca Bennett	D.C.
A.M. 1940, University of Virginia		Browder, Frances Elizabeth	D.C.
Broadstreet, Henry Thomas, Jr.	Fla.	Brower, Helene Biringier	
B.S. 1945, University of Florida		A.B. 1938, Skidmore College	
Brobat, Donald George	Pa.	A.M. 1944, Yale University	D.C.
Brock, Ava Nell	Va.	Brown, Agnes Marie	
Brock, Xavier Martin, Jr.	N.C.	A.B. 1949, The George Washington University	Va.
Brodeur, Anne Isabel	D.C.	Brown, Alice Knowles	Va.
Brodie, Loy Hall, Jr.	D.C.	Brown, Alma Phillips	
Brodie, Zebulon Julian	Md.	A.B. 1936, Limestone College	D.C.
Brodnan, Betty Jane	Wis.	Brown, Anna M.	Va.
Brodsky, Herman	N.Y.	Brown, Barbara Jane	Ky.
A.B. 1949, The George Washington University		Brown, Ben Locke	D.C.
Brodsky, Irene Ross	D.C.	Brown, Benjamin Franklin	N.M.
		Brown, Bert Norman	



Brown, Bertha G.	Md.	Brown, Mary Parkin	Va.
Brown, Betty Gene	W.Va.	Brown, Maude D.	Ark.
Brown, Catherine Marie	D.C.	A.B. 1948, The George Washington University	Va.
Brown, Charles Edward	Va.	Brown, Milton Henry	Va.
B.S. 1934, United States Military Academy		A.B. 1937, University of Pittsburgh	D.C.
A.M. 1948, University of Missouri		Brown, Minnie Ray	Va.
Brown, Charles Robert	D.C.	Brown, Mollie Martina	N.J.
Brown, Clarice Ballou	Md.	Brown, Morris	D.C.
A.M. in Ed. 1936, Cornell University		Brown, Oril Irene	
Brown, Curtis Leslie	D.C.	B.S. 1930, Northwestern University	La.
Brown, Daniel	N.Y.	Brown, Patricia Louise	D.C.
A.B. 1948, The George Washington University		Brown, Robert Alden	Pa.
Brown, Dennis David	N.J.	Brown, Robert Lee	Calif.
Brown, Donald Arthur	D.C.	Brown, Robert Nelson	Md.
A.B. 1949, The George Washington University		Brown, Robert William	Va.
Brown, Donald Carlton	D.C.	Brown, Ronald Lawson	S.D.
Brown, Doris Blandena	N.C.	Brown, Roy Carl	Md.
Brown, Edward Horace	D.C.	Brown, Russell Martin	Ohio
B.S. 1949, University of Utah		Brown, Stanley Wayne	
Brown, Edward John	Pa.	A.B. 1949, Ohio State University	D.C.
A.B. 1948, Muhlenberg College		Brown, Thomas Cameron	Va.
Brown, Elsie Mio	D.C.	Brown, Thomas Luther, Jr.	Va.
A.B. 1949, The George Washington University		Brown, Thomas Marion	Mo.
Brown, Emma Elise	N.Y.	Brown, Virginia Luella	Va.
A.B. 1924, A.M. 1927, University of Colorado		Brown, Walter Louis, Jr.	Va.
Brown, Eugene Earl	Pa.	Brown, Webster Emerson	Ohio
Brown, Fanna Elizabeth	D.C.	Ph.B. 1934, Muhlenberg College	
A.B. 1948, Pennsylvania State College	Ohio	Browne, David Myron	
Brown, Frank David	Md.	A.B. 1947, Denison University	Va.
Brown, George Edward	Wis.	Browne, Harry Langworthy	W.Va.
B.S. in Ed. 1935, Wisconsin State Teachers College, Eau Claire		Browning, Helen Marie	D.C.
M.S. 1941, University of Colorado		Browning, Jack Arthur	D.C.
Brown, Harvey Lloyd, Jr.	Va.	Browning, Preston Calvin	N.J.
B.S. 1938, United States Military Academy		Brownson, Ernest Maitland	Va.
Brown, Herman Cubbage	Del.	Brownson, Robert Henry	Fla.
A.B. 1948, University of North Carolina		B.S. 1948, John Carroll University	N.Y.
Brown, Imogene Elizabeth	Va.	Brownstein, Dora	Va.
A.B. 1931, Oklahoma State Teachers College		Brownstein, Herman	Va.
Brown, James Clinton	N.Y.	Broy, Beverly Hite	Va.
Brown, James Grady	Md.	Broy, James William	Va.
A.B. 1948, The George Washington University		Broyles, Walter Leon	Wash.
Brown, James Robert	Conn.	Broz, Richard Francis	D.C.
Brown, James Webster	Md.	Brubaker, Robert Lee	Mass.
Brown, Jean Shea	D.C.	Bruce, Charles Warren	Md.
Brown, Joan Lucile	D.C.	Bruce, Clayton Roy	
Brown, John David	D.C.	B.S. 1946, University of Pittsburgh	D.C.
Brown, Kenneth Ray	D.C.	Bruce, James Crawford	Mich.
B.S. in Eng. 1949, The George Washington University		Bruce, John Charles	Md.
Brown, Lee Berry	W.Va.	Bruce, Tracey Kirtz	Okl.
Brown, Lewis Donald	D.C.	Bruce, William Averett	D.C.
Brown, Luther Adolphus, Jr.	Va.	Bruce-Briggs, Florence James	D.C.
B.S. 1933, Farmville State Teachers College, Va.		Bruchie, Robert Joseph	D.C.
Brown, Margaret Joan	D.C.	Bruffey, Albert Henry	D.C.
Brown, Marjorie Alice	D.C.	Brugioni, Dino Anthony	D.C.
B.S. 1942, Wilson Teachers College		A.B. 1947, A.M. 1948, The George Washington University	
Brown, Martin John	Ark.	Bruin, Mackall Virginia	Va.
B.S. in Ch.E. 1948, Purdue University		Brumback, Frances Smither	Va.
Brown, Mary Kathryn	W.Va.	Brumbaugh, William Robert	D.C.
		Brunauer, Sandor	Hungary
		Dr. of Jurisprudence, 1928, University of Pecs, Hungary	
		Bruner, Grace Elizabeth	Va.
		Bruner, Rachel Alice	Md.
		Brunk, Herman George	D.C.
		Brunner, Gerti Landauer	Va.
		A.B. 1940, University of California	
		Brunner, Junius Howard	Va.
		Bruno, Joseph Frank	Conn.
		B.A.E. 1944, M.A.E. 1947, New York University	
		Bruns, Katherine Vivian	N.Y.



Brunson, Woodrow W. A.B. 1933, Spring Hill College LL.B. 1937, Georgetown University	Ala.	Buckley, Daniel John Buckley, Ralph Edward B.S. 1938, Virginia Polytechnic Institute	D.C. Va. Va.
Brusiloff, Leova Bruskin, Leo A.B. 1949, The George Washington University	Md. Conn. Va.	Buckley, Robert Baldwin B.S. 1949, The George Washington University	Va. D.C.
Bruss, Otto Henry Brust, George A. Brust, Nora May Trittippoe Bruton, Sally Ann	Va. D.C. Va. Md.	Buckman, William Boyd B.S. 1947, University of Maryland Buckmaster, George Walton Bucknam, Bettina	Pa. Mass. D.C.
Bryan, Elmer Fred, Jr. Bryan, Ferguson Beach B.S. 1919, United States Naval Academy	Va. Md. Md.	Buckner, Thelma M. Buckner, Willa M. Buckner, William Coles Budge, Dorothy Helen	D.C. D.C. Mo. Va.
Bryan, James Edward B.S. 1945, M.S. 1946, Virginia Polytechnic Institute	Md.	Budsock, Leonard Edmund Budz, Henry Richard Buechle, C. Iown	Pa. Mass. N.Y.
Bryan, Jean Bryan, Kit B.E.E. 1911, M.S. 1932, North Carolina State College	D.C. N.C. D.C.	Buehler, Emily Josephine Buehler, Norman Conrad Buehrle, Cyril Anthony	Pa. N.Y. D.C.
Bryan, Ralph H. Bryan, Raymond Joseph Bryan, Ruth Louise Bryan, Truman Grove Bryan, William C. B.S. 1940, Oklahoma Agricultural and Mechanical College	D.C. Mo. D.C. D.C. D.C.	Buel, Helen Powers Buell, Douglas Macleod Buery, Joseph Francis Buettner, William Robert	D.C. D.C. N.Y. N.Y.
Bryant, Frederick David A.B. 1946, University of Florida A.B. in L.S. 1947, Emory University	Fla. D.C.	B.A. 1949, Dartmouth College Buffalohide, Homer Joseph, Jr. Bugaila, John Anthony Buhl, John Maurice	Okl. N.H. D.C. Va.
Bryant, Horace Andrew Bryant, Lucy Nell Bryant, Mary Lucille Bryant, Nola Wingo B.S. in Ed. 1927, University of Tennessee	D.C. Ga. Ala. Va.	Buhrman, Jacqueline Chevallaz A.B. 1944, The George Washington University A.M. 1946, Columbia University Buhrman, Lloyd William	Va. Tex.
Bryant, Ralph Lee B.S. 1949, University of Missouri Bryce, Anna Lee A.B. 1948, University of Florida	Mo. Fla. Md.	A.B. 1939, A.M. 1941, Washington University Buldain, Frank Javier A.B. 1933, LL.B. 1935, Baylor University	Ind.
Bryde, Georgia Rea Brydon, Wilson P. A.B. 1947, West Virginia Wesleyan College	D.C.	Bull, Barbara Ann B.S. in Ed. 1947, University of Miami Bull, Frate, Jr. Bulla, William Lawrence	Ala. D.C. D.C.
Bryner, Joyce Louise Brzozowski, Edmund Bucar, Erika Bucci, Dominick Anthony Buchanan, Katherine Donnell A.B. 1936, Tulane University	Ohio Mass. D.C. N.J. Ark.	Bullen, Bryant Jacobs B.S. 1948, University of Utah Bullen, Jacob Thompson, Jr. B.S. 1934, United States Naval Academy	Va. D.C.
Buchanan, Mary Beverly Buchanan, William Walter B.S. 1949, Georgetown University Buchhett, John Robert B.S. 1929, Hamline University M.S. 1933, University of Illinois	Fla. D.C. Minn.	Bullis, William Francis B.S. 1924, United States Naval Academy Bullock, Barbara Ann Bullock, Frederick Allyn Bullockus, Theodore	Va. D.C. D.C.
Buchholz, Edward Walter Buchman, Daniel Buchsbaum, David Jule Buck, Barbara Lou Buck, Donald Alden Buck, Dudley Allen B.S. in E.E. 1948, University of Washington	Conn. N.Y. N.J. Va. D.C. Calif.	A.B. 1949, A.M. 1950, The George Washington University Bullough, John Frank Bulman, Grace M. B.S. 1924, Columbia University Bultman, John Dale B.S. 1950, The George Washington University	Md. D.C. Ill. Va.
Buck, Fred Everett Buck, Samuel Otho Buckberg, Morton L. Buckler, James Leonard A.B. 1944, The George Washington University	Va. D.C. D.C. Va.	Bumer, Charles Theodore, Jr. A.B. 1947, Cornell University Bumgardner, Edward L. A.B. 1948, The George Washington University	Va. Va. Va.
Buckley, Betty Jean	D.C.	Bunch, John Seveir Bundock, John Paul David, Jr. B.S. in E.E. 1948, Tufts College	Va. D.C.



Bunevich, Irving	N.J.	Burks, Harold Allen	Va.
B.S. 1934, United States Naval Academy		Burleson, Carl Edward, Jr.	Fla.
LL.B. 1940, The George Washington University		A.B. 1947, Washington and Lee University	
Bunge, Martha Susan	D.C.	Burlingame, Claude Edgar	D.C.
Bunker, Grace Isabella	Md.	Burman, John Richard	Md.
Bunker, Joseph Baldrige, Jr.	Md.	Burnap, Courtney Noble	Mass.
Bunnell, Mabel Angela	Mass.	A.B. 1938, Bates College	N.Y.
Bunten, Elizabeth	D.C.	Burnet, Arthur Russell	
A.B. 1930, The George Washington University		A.B. 1932, Oberlin College	
Bunting, Clyde Ellis	D.C.	Burnett, Allen Frederick	Ill.
Bunting, Gwenneth Ann	D.C.	Burnett, Lloyd Calvin	Fla.
Bunting, Warren John	N.J.	Burns, Bland Calvin	Va.
Buol, Laura Belle	D.C.	Burns, Catherine Rita	Mass.
Buonomo, Rizalia Mercedes	Puerto Rico	Burns, Donald Frances	Md.
Burak, Hugh	N.Y.	B.S. 1943, Indiana University	D.C.
Burak, Stanley	Pa.	Burns, Edward Joseph	N.J.
Burch, Jacqueline Diane	Va.	Burns, Eugene Joseph	Pa.
Burch, James Franklin	N.C.	Burns, Francis Henry	Mass.
Burcham, John Bartlett, Jr.	D.C.	Burns, Francis Jerome	D.C.
Burchard, Kathryn Anne	N.J.	Burns, Robert Emery	Mass.
Burchette, Herbert Lee	Va.	Burns, Robert Joseph	D.C.
Burchfield, Bess Hurt	W.Va.	A.B. 1949, The George Washington University	
B.S. in Ed. 1941, Madison College		Burns, Robert Samuel	D.C.
Burdeau, Homer Philip	Mass.	Burns, Thomas William Edward	W.Va.
Burdett, Melvin	D.C.	Burns, Walter William, Jr.	N.Y.
Burdette, Eunice Shirley	Md.	B.E.E. 1942, Cornell University	
Burdette, Frances Ryan	Va.	LL.B. 1949, The George Washington University	
Burdsall, Lorna Nell	Conn.	Burr, LaVern Harold	Va.
A.B. 1949, The George Washington University		A.B. 1947, Butler University	D.C.
Burford, Frank Page	Va.	Burr, William Norvell	Md.
Burgee, Miel Day	Md.	Burrington, Dale Eugene	Ill.
B.S. 1927, University of Maryland		Burris, Robert Eugene	D.C.
A.M. 1937, Columbia University		Burroughs, George Aloysius	Tenn.
Burger, Joel Arthur	N.Y.	Burrow, Rhea Morgan	
Burgess, Eileen Elizabeth	Mo.	A.B. 1937, Transylvania College	
Burhoff, Lillian	D.C.	LL.B. 1950, Georgetown University	
Burhans, Cynthia Constance	Va.	Burrow, William Gordon	D.C.
Burk, Paul William, Jr.	D.C.	Burrowes, Thomas	D.C.
Burk, Pricia Fern	Mo.	B.S. 1925, United States Naval Academy	
Burka, Leon Harry	D.C.	Burson, Edna Ruth	Miss.
Burke, Calvin Roscoe	D.C.	Burstein, Lloyd Mitchel	La.
Burke, David Francis	N.Y.	A.B. 1944, University of California at Los Angeles	
Burke, David Moncrief	Va.	Burt, June Dolores	D.C.
B.S. 1946, University of Virginia		Burtner, Roy Hoffmann, Jr.	D.C.
Burke, Elizabeth Billings	D.C.	Burton, Charles Junior	D.C.
B.S. 1939, M.S. in Ed. 1941, Temple University		Burton, George, Jr.	N.J.
Burke, George Anderton	Va.	B.S. in Met. E. 1950, Virginia Polytechnic Institute	
Burke, James Andrew	D.C.	Burton, Frances Adams	D.C.
Burke, James Freemont	D.C.	Burton, Joseph John	Va.
Burke, James Lansing, Jr.	Md.	Burton, Lockwood Duquesne	D.C.
Burke, John Edward	Va.	Burton, Phyllis June	D.C.
Burke, John Grant	Va.	Burton, Racely Mary	Md.
Burke, Joseph	Pa.	Burton, Robert Lee	D.C.
Burke, Joseph Augustus III	D.C.	Burton, William Miles	D.C.
Burke, Kenneth Stanley	D.C.	Burwell, Ann Hutton	D.C.
Burke, Marian Elaine	D.C.	Burwell, Nathaniel Turner	Miss.
Burke, Rita Marie	D.C.	Busby, Andrew Lyttleton	
B.S.E. in M.E. 1932, Boston Teachers College		A.B. 1942, Mississippi State College	N.Y.
Burke, Stephen Patrick II	D.C.	Busch, Inez Lorraine	
A.B. 1949, Columbia University		B.S. 1949, University of Rochester	
Burke, Thomas Joseph	Va.	Buscher, James Ralph, Jr.	Va.
Burkert, Alfred, Jr.	Va.	Buschmeyer, Frederick Sherman	N.H.
Burks, Craighill Stoner	N.J.	Bush, Barbara Ann	N.Y.
B.S. 1941, Hampden-Sidney College		Bush, Dorothy Louise	Fla.
Burks, Elizabeth Butler	Va.	A.B. 1946, Florida State College	
Burks, George Edward, Jr.	D.C.		



Bush, Harry Leonard	Ala.	Cable, Jesse Franklin	Calif.
B.S. 1940, Alabama Polytechnic Institute		Cadeaux, Ralph Helale	D.C.
Bush, Jeremiah Estell	Pa.	A.B. 1949, The George Washington University	D.C.
Bush, Joseph Francis	D.C.	Cafferty, Patrick Joseph	D.C.
B.S. 1947, Mount St. Mary's College		Caffes, Peter James	Ga.
Bushmaier, William Fryor	D.C.	Caffey, Helen Mead	Va.
Bushnell, Richard	Ind.	Caffrey, James Anthony	Pa.
B.S. in M.E. 1948, Purdue University		Caffrey, Mary Margaret	Wis.
Bushong, Wendell Edgar	Md.	Caflisch, Frank Albert	Ga.
Busillo, Richard Edward	Pa.	Cagle, Anna Leonora	Ga.
Busits, Louis Frank	Pa.	Cagle, Sherman Clinton	N.Y.
Buss, JoAnne Marilyn	Va.	Cagliostro, Frank Michael	D.C.
Bussard, Gale Ernest	Md.	Cahan, Jules Isaac	
Bussey, Alfred Gordon	Va.	B.S. 1949, The George Washington University	
Bussey, Howard Emerson	Md.	Caherty, Eileen A.	Md.
A.B. 1943, The George Washington University		Cahill, Helen R.	D.C.
Bussler, John McCrossin	D.C.	B.S. 1928, Iowa State College	Md.
Bussler, Robert Bruce	D.C.	Cahn, Frank Bernard II	D.C.
Butcher, David Frederick	Va.	Cahoon, Lillian Adelaide	Va.
Butcher, Harold Kenneth	Calif.	Cahoon, Lynda Lee	W.Va.
Butcher, William Elden	Md.	Cain, Beryle Virginia	Ill.
Buterbaugh, Charles C., Jr.	D.C.	Cain, Billy Wayne	D.C.
Buterbaugh, Charlotte Anne	D.C.	Cain, George Donald	D.C.
Butkus, Carl John	Pa.	Cain, George Stepkin	Md.
B.S. 1949, The George Washington University		Cain, John Wallace	Wis.
Butler, Alva Eugene	D.C.	Cain, Thelma Shirley	D.C.
Butler, Charles Edward	Mass.	Cain, William Bell	Ind.
Butler, Claude Lee	Tenn.	Cain, William Morris	W.Va.
Butler, Miriam Luella	Calif.	Caine, Tracy Matthew	
A.B. 1936, University of Nevada		B.S. 1949, Georgetown University	D.C.
Butler, Raymond Thompson, Jr.	Calif.	Cajigas, Paul Anthony	D.C.
Butler, Richard Frank	D.C.	Caldwell, Edward Richard	Va.
Butler, Thomas Edward	Md.	Caldwell, Margaret	Tenn.
Butler, William Clayton, Jr.	Va.	Caldwell, Randolph Foster, Jr.	Ind.
B.S. 1930, United States Naval Academy		Caldwell, Wildfred Gene	
Butler, William Powers	D.C.	B.S. in E.E. 1945, M.S. in E.E. 1948, Purdue University	W.Va.
B.S. 1949, Georgetown University		Calhoun, William Harper	D.C.
Butt, Frederick Christian	Va.	Callaghan, Frances Goddard	Calif.
Butt, Minerva Alice	Md.	Callahan, Edward Cooper	N.Y.
Butterfield, Sara Barbara	Calif.	Callahan, John Francis	Pa.
A.B. 1937, Whittier College		Callahan, John Joseph	Tenn.
Buttermore, Mildred K.	Tex.	Callahan, Martha Anne Howard	
A.B. 1930, Texas Christian University		A.B. 1949, The George Washington University	Va.
Button, Dale Leon	Kans.	Callan, Bernard Aloysius	Md.
Button, Ronald Earl	Ill.	Callander, Ann Deeley	Md.
A.B. 1916, Northwestern University		Callander, Chester Lee	
Butts, Dorothy I.	Iowa	A.B. 1940, University of California	Minn.
Butts, Lee Garland	Va.	Callander, Donald Bruce	Okl.
Butts, William Aglonby	Va.	Callaway, Charles Calvin	
Buzzell, Donald Alan	Va.	A.B. 1949, The George Washington University	
Buzzell, Robert Don	Va.	Callaway, Huguetta Vander Hoeghe	Belgium
Byer, Seymour	Conn.	Callaway, Joseph Easterling III	Ark.
Bykofsky, Joseph	D.C.	Callaway, Mariella McCown	Md.
B.S.S. 1941, College of the City of New York		Callegary, Claude Leon	D.C.
A.M. 1942, Columbia University		Callow, John Henry	Del.
Byles, Robert Stanley	Va.	Calloway, James Richard	D.C.
Byrne, Eugene Aloysius	D.C.	Calloway, Roger	D.C.
Byrne, Francis Artaud, Jr.	D.C.	Calomeris, George	Va.
Byrne, James Anthony	N.Y.	Calow, Paul Emerson	
Byrne, Michael Joseph	N.Y.	B.S. in M.E. 1944, University of Minnesota	Pa.
Byron, James Edgar	D.C.	Calverley, Wesley Skilton	
A.B. 1949, Princeton University		B.S. 1937, United States Military Academy	
Byron, Robert Milton	Va.	Calvin, Charles Joseph	Pa.
Bywater, Maurice John	Va.	Camarot, Henry Jules	D.C.
		Cambosos, Nicholas Michael	Conn.
C			
Cable, Frank Gilbert	N.Y.		
Cabeza, Diana	N.Y.		



Camby, John Joseph B.S. 1941, Carnegie Institute of Technology	Pa.	Campbell, Sheila Elizabeth	D.C.
Camelio, Joseph Albert	N.Y.	Campbell, Thomas Kelly	N.C.
Cameron, Archie Enos B.S. in Comm. 1941, Ferris Institute	D.C.	Campbell, William Arlin	Tenn.
Cameron, Betty Jean	D.C.	Campbell, Yolanda Agoni	D.C.
Cameron, Frank Conevery A.B. 1932, University of Michigan	Pa.	Campion, Harold Joseph	Iowa
Cameron, John William A.B. 1949, The George Washington University	D.C.	Campo, Victor Charles A.B. 1948, The George Washington University	Vt.
Cameron, William Kimmel A.B. 1948, LL.B. 1950, The George Washington University	Ohio	Canady, William James B.S. 1946, Fordham University	N.Y.
Camfield, Thornton John	Md.	Canafax, Everett Daniel	Ky.
Cammer, Margaret Ann B.S. 1948, M.S. 1949, The George Washington University	Va.	Canan, James Franklin A.B. 1949, Haverford College	Pa.
Camp, Glen Darwin	Md.	Canby, Medford Parr	D.C.
Camp, Victor William	R.I.	Candleana, Paul Joseph	Md.
Campagna, Ignatius Edward	Va.	Canham, David William, Jr.	Wash.
Campagna, Joseph Henry	D.C.	Cann, Philip Winslow B.S. 1932, United States Naval Academy	Pa.
Campana, John Paul B.S. 1943, Mansfield State Teachers College, Pa.	D.C.	Cannon, John Andrew	Md.
Campanile, Lewis Frank	D.C.	Cannon, Thomas David	Pa.
Campbell, Ann Abel	Va.	Cannon, Warren H.	D.C.
Campbell, Arthur Bernard, Jr.	D.C.	Cantini, Humbert John, Jr.	N.C.
Campbell, Barbara	Va.	Cantley, Thomas William	S.C.
Campbell, Bettigene B.S. in Ed. 1948, Capital University	D.C.	Cantor, Bernard J. B.M.E. 1949, Cornell University	N.Y.
Campbell, Charles Edward B.E.E. 1949, The George Washington University	Va.	Cantor, Neil Jay	D.C.
Campbell, Charles Edwin	Ky.	Cantrell, James Muir	D.C.
Campbell, Charles Frederick	N.J.	Cantrelle, Chester Orlin A.B. 1948, University of Utah	Ky.
Campbell, Charlotte Catherine	Va.	Cantwell, William James A.B. 1949, The George Washington University	N.Y.
Campbell, Donald Allen	D.C.	Canty, Owen Joseph	D.C.
Campbell, Donald Herman	D.C.	Canulla, Guido John	Mass.
Campbell, Donald Hugh	Conn.	Capel, Marie Watkins	Va.
Campbell, Edmund Douglas, Jr.	Va.	Caplan, Joel Bernard A.B. 1949, State University of Iowa	D.C.
Campbell, Francis Myrl B.S. in Ed. 1949, Indiana State Teachers College, Pa.	Va.	Caples, Willis Harry B.S. in P.E. 1946, University of Oregon	Nev.
Campbell, Francis Walter Ed.B. 1946, Rhode Island College of Education	R.I.	Caplin, Vincent Anthony, Jr.	D.C.
Campbell, James Joseph	D.C.	Capocalse, Eugene A.B. 1947, Columbia University	N.Y.
Campbell, James Leonard	Pa.	Capozzi, Lucille Marie A.B. 1948, Rutgers University	N.J.
Campbell, James Vincent	D.C.	Capp, John Walter	N.J.
Campbell, Jean Wilma	Va.	Cappello, Giacomo	N.Y.
Campbell, John Elmer	Md.	Capps, Anna Joyce	D.C.
Campbell, John Howard	Md.	Carabas, Frank	N.Y.
Campbell, John Keith	Mass.	Carabba, Pat	Pa.
Campbell, John Patrick	D.C.	Caracciolo, Francis Samuel	D.C.
Campbell, John Wesley	D.C.	Caracciolo, Leonard Dominic	D.C.
Campbell, Lawrence Alois A.B. 1939, M.B.A. 1941, Harvard University	N.Y.	Carau, Frank Louis, Jr.	Va.
Campbell, Margaret Elizabeth	Ohio	Carballo, Caridad Mercedes	West Indies
Campbell, Mary Dyer A.B. 1919, Randolph-Macon Woman's College	Va.	Carbennagua, Richard William	D.C.
Campbell, Mildred Ann	D.C.	Cardano, Ferdinand Sabastian	Md.
Campbell, Paul Calvin A.B. 1938, Ed.M. 1939, Pennsylvania State College	Pa.	Cardillo, Joseph Phillip	D.C.
Campbell, Robert Alexander, Jr.	N.J.	Carey, Marjorie Lucia	Mass.
Campbell, Robert Russell B.S. in C.E. 1940, University of California	Va.	Carey, Patrick Francis	N.H.
M.B.A. 1949, Harvard University		Carl, Albert Clement	Md.
		Carleton, Lois Claire A.B. 1943, College of Our Lady of the Elms	Mass.
		Carlin, John Francis	Va.
		Carlisle, Patricia Anne	Va.
		Carlson, Guy McDowell	D.C.
		Carlson, Betty Lou	Va.
		Carlson, Carl Arthur B.S. in M.E. 1938, Tufts College A.M. 1941, Boston University	Va.
		Carlson, Charles Eric	D.C.



Carlson, Dorothy Sandison	D.C.	Carroll, Nicholas Vincent	Pa.
B.S. 1936, Northwest Missouri State College		B.S. 1948, Geneva College	Va.
Carlson, Herbert Donald	Md.	Carroll, Norman Sellman	
Carlson, Howard Kenneth	D.C.	A.B. 1949, The George Washington University	Mass.
A.B. 1949, The George Washington University		Carroll, Richard Stephen	Md.
Carlson, Jeanine Elizabeth	Iowa	Carroll, Thomas Francis, Jr.	
Carlson, Randolph Adair	Md.	B.S. 1948, Georgetown University	D.C.
A.B. 1948, Brown University		Carroll, Thomas Theodore, Jr.	Ala.
Carlson, Theodora Elizabeth	Nebr.	Carroll, Virginia Dee	Ala.
A.B. 1930, Wayne State Teachers College, Nebr.		Carroll, Will Herman	
Carlson, Walter Loren	Nebr.	B.S. 1946, LL.B. 1948, University of Alabama	D.C.
B.S. 1949, University of Nebraska		Carroll, William Joseph, Jr.	Fla.
Carlton, Harry Nelson	D.C.	Carsey, Juanita Anderson	D.C.
B.S. 1949, The George Washington University		Carson, Arthur Naeole	
Carlton, Virginia May	Mass.	B.S. 1944, California Institute of Technology	Va.
Carman, Harry Ayres	Va.	Carson, Joseph Malcolm	D.C.
Carman, Hazelmarie Clinkenbeard	Calif.	Carson, Martha Yarrington	D.C.
Carmichael, Donald	D.C.	Carson, Robert Paul	D.C.
Carmichael, William Edward	Va.	Cartee, Elisabeth	Fla.
Carne, William Benton	Tenn.	Carter, Anne Baxley	
B.S. in B.A. 1943, University of Tennessee		A.B. 1949, Florida State University	Ill.
Carnel, Owen Haskins	Va.	Carter, Darrell Denmeade	
Carnes, Raymond Eugene	Md.	A.B. 1949, The George Washington University	Va.
A.B. 1947, The George Washington University		Carter, Elizabeth Carsey	D.C.
Carnivale, Caroline	N.Y.	Carter, George Washington	
Carof, Sybil Phyllis	N.Y.	A.B. 1948, The George Washington University	Va.
Caron, Anna Mae	Ohio	Carter, Harold Martin	
Carothers, Constance Olive	Mass.	B.S. 1942, Roanoke College	D.C.
Carpenter, Agnes Proffitt	Va.	Carter, Helon Russell	Md.
A.B. 1945, De Pauw University		Carter, Jennie Malin	
Carpenter, Anita Jean	Va.	B.S. in Ed. 1941, University of Louisville	D.C.
Carpenter, Charles Stanley	Va.	Carter, Margaret Ann	D.C.
Carpenter, Edwin John, Jr.	D.C.	Carter, Philip Richard	Va.
Carpenter, Gladys Rosemary	Fla.	Carter, Robert Edward	
Carpenter, Richard Edison	Md.	B.S. 1942, Davidson College	Va.
A.B. 1935, Dartmouth College		Carter, Russell Kenneth	N.Y.
A.M. 1946, Columbia University		Carter, Sidney	
Carpenter, Robert Dollar	D.C.	B. of Ch.E. 1942, College of the City of New York	Va.
Carpenter, William Otis	Va.	Carter, Thomas Victor	Ill.
Carpentier, Patrick Louis	Md.	Carter, Virginia Adair	Va.
Carpino, Salvino Francis	Mass.	Carter, William Joseph	
Carr, George Lafayette	Ga.	A.B. 1949, The George Washington University	D.C.
Carr, Mary Margaret	Ohio	Carter, Woodbury	
Carr, Max Wayne	Mo.	B.S. 1945, United States Military Academy	D.C.
Carr, Robert Addison	Calif.	Carteret, George Minor	N.Y.
B.S. 1932, Ohio State University		Cartin, Thomas Joseph	Mass.
Carr, Robert Studor	Md.	Carulli, Leonard	
Carr, Stuart	Md.	A.B. 1949, The George Washington University	N.Y.
Carr, William Hoyt	S.C.	Caruso, Anthony John	N.J.
B.S. 1940, Furman University		Caruso, Lawrence Robert	
Carr, William Larwill	Ohio	A.B. 1949, The George Washington University	N.J.
Ph.B. 1949, Kenyon College		Caruthers, Chester Preston	Va.
Carr, William Racoffort	Md.	Caruthers, Theresa Carolyn	D.C.
Carrara, Daniel Anthony	N.Y.	Carvallas, Georgia	D.C.
Carrell, Thelma Leaetta	D.C.	Carvallas, Perry	Conn.
Carrick, Lester Forest	Md.	Carver, William Franklin	D.C.
Carrier, Craig	Ky.	Carville, Lewis Everett	
Carrig, Rome John	D.C.	A.B. 1948, American International College	
Carrillo, Abelardo B.	Philippines	A.M. 1949, Boston University	
B.S. in C.E. 1930, State University of the Philippines			
Carroll, Douglas Stewart	N.Y.		
Carroll, Jack Everett	D.C.		
Carroll, Mary Josephine	Tenn.		
A.B. 1931, Maryville College			
A.M. 1948, The George Washington University			



Cary, Carolyn Ray			
B.S. 1931, Emporia State Teachers College, Kans.	Va.	Cavallo, Frank Nicholas	Mass.
Cary, George Lee, Jr.		Cavallo, Giglio Frank	Conn.
A.B. 1949, University of Maryland	Md.	Cavallo, Guido	Mass.
Casalet, John Peter		Cavan, William Eugene	N.C.
Cassanova, Arturo Ynocencio	Calif.	A.B. 1948, Guilford College	
Casas, Ricardo Jose	D.C.	Cavanagh, John Edward	Oreg.
Case, James Sanford	D.C.	A.B. 1941, University of Oregon	
Case, Matalée Talbutt	Va.	Cavanagh, Thomas Edward, Jr.	Ill.
A.B. 1927, A.M. 1929, Ph.D. 1931, The George Washington University	Md.	Cavanaugh, John Patrick	Ind.
Caselon, Paul Nicholas		Cavanaugh, Vincent DePaul	Pa.
A.B. 1949, The George Washington University	Ill.	B.S. 1940, Pennsylvania State College	
Casera, Armando		Cawley, Eugene Horan	N.J.
A.B. 1941, Colgate University	Va.	Cawood, Mary Alice	Md.
A.M. 1947, New York University		Cearley, Landis Powell	N.C.
Casey, Ann Donnelly		Cecil, Howard	Ky.
Casey, John Brendan	Oreg.	Cederstrand, Carl Nelson	D.C.
Casey, John Hugh	D.C.	Celenza, Josephine Mary	D.C.
Casey, John Joseph	Va.	Centra, Anthony Francis	N.Y.
Casey, Lloyd Bernard	Pa.	Cerola, Roland Peter	Md.
Cash, James Barrett, Jr.	Mass.	Cerami, Charles August	D.C.
Cashatt, Vanchie Lorraine	Ark.	B.S. 1942, Georgetown University	
Cashman, Robert William	Mo.	Cerami, Ruth Naele	D.C.
Caslin, James Michael	Pa.	A.B. 1944, The George Washington University	
Cason, Vivian Jamie	D.C.	Cerda, James John	Md.
Caspar, William Charles	Fla.	Cerf, Fred Robert	N.Y.
B.A.E. 1943, Catholic University of America	D.C.	A.B. 1949, New York University	
Cassedy, James William III		Cerick, Peter Aull	N.C.
Cassedy, Vesta	Va.	Cerne, Rose Ann	Mo.
B.S. 1942, University of Maryland	Md.	Cerny, Libuse	Va.
Cassell, Irving Seymour		A.B. 1938, University of Texas	
Cassell, Sanford Charles	N.Y.	Cerra, Arthur Joseph	N.Y.
Cassidy, James Donald	Md.	Cerstvik, Milan Stephen	N.J.
Cassidy, Lewis Cochran	D.C.	Cervantes, Robert Martinez	D.C.
Cassidy, Sally Ann	D.C.	A.B. 1949, The George Washington University	
Cassin, Vernon	D.C.	Cesare, Leo Louis	Pa.
A.B. 1941, Wayne University	Mich.	Chabak, Joseph Thomas	Pa.
Cassity, Donn Edward		Chabinak, Lillian Hutchison	Va.
Cassou, Bertin Michel	Utah	B.S. 1939, Salisbury State Teachers College, Md.	
Castle, Evelyn Starr	D.C.	Chacalos, Sophia Z.	W.Va.
Castro, Anthony Joseph	D.C.	Chaconas, Frances	D.C.
Caswell, Robert Little	D.C.	Chacos, Anthony	Va.
B.S. 1939, University of California	Calif.	Chacos, Maria George	D.C.
Caswell, Ruth Virginia		A.B. 1949, The George Washington University	
Catalan, Elena Josefina	D.C.	Chacos, Nicholas George	D.C.
A.B. 1942, Dunbarton College	D.C.	Chacos, Theresa	D.C.
Catalina, Stephen Patrick		Chad, Seymour Walter	N.Y.
Cater, Charles John	D.C.	A.B. 1948, University of California at Los Angeles	
B.S. 1922, United States Naval Academy	Va.	Chadwick, Eleanor M.	Md.
M.S. 1930, Pennsylvania State College		A.B. 1932, University of Maryland	
Cates, Lorraine B.		Chadwick, William Edward	Va.
Cates, Mary F.	Md.	Chagnon, Cecile Lydia	N.H.
Catington, Winnifred Coberly	Tex.	A.B. 1948, Rivier College	
A.B. 1940, Western Maryland College	Md.	Chakeres, Anita	D.C.
M.Ed. 1949, University of Maryland		Chakeres, Pauline George	D.C.
Catlin, John Edward, Jr.		A.B. 1949, College of William and Mary	
Catterall, Logan Virgil	Va.	Chakeres, Pete	D.C.
Catterton, Conn Dewitt	Iowa	Chamberlain, Nelson Horatio, Jr.	Md.
A.B., A.M., 1935, University of Texas	Va.	Chamberlin, Guy Wadsworth	D.C.
Caulfield, Donald John		Chamberlin, John Matlock	Md.
Caulfield, Mildred V.	N.Y.	Chambers, Ann Douglas	D.C.
Caulfield, Samuel Joseph	D.C.	Chambers, Curtiss Nelson	D.C.
Cavagrotti, Victor John	Va.	Chambers, Gervaise Broadbuss	Md.
Cavallaro, Augustine Louis	Va.	Chambers, Kennon Frederick	W.Va.
Cavallaro, Velma Antoinette	Conn.	Chamieh, Souhail Mitri	Lebanon
Cavallo, Anthony Joseph	N.Y.	B.B.A. 1943, M.B.A. 1946, American University of Beirut, Lebanon	
A.B. 1939, Lafayette College	Ariz.		



Champagne, Maurice Anthony	La.	Chastain, Billy Fed	D.C.
B.S. 1931, Louisiana State University		Chatelan, Diane Louise	Va.
Champion, Clarence Paul, Jr.	Ga.	Chauvette, Louis Michael	Mich.
Champion, Lillian Geneva	D.C.	A.B. 1949, Catholic University of	
Chan, Calvin B.	Calif.	America	
Chan, Chong Kwok	China	Chavez, Mary Armijo	N.M.
Chan, May	D.C.	Chazin, Sheldon	N.Y.
Chanatry, Francis	N.Y.	B.B.A. 1949, College of the City of	
M.D. 1948, Albany Medical College		New York	
Chance, Anthony Nicholas	N.J.	Checchia, Maria Katherine	D.C.
Chandler, Alfred White, Jr.	Md.	Checkoway, Abraham	Va.
Chandler, Archie Lee	D.C.	Chedester, John T.	W.Va.
Chandler, Joseph Merritt, Jr.	Va.	Chedufau, Nestor Edmundo	D.C.
Chanel, Weymer Lee	Va.	Cheesman, George LeRoy	D.C.
Chaney, Anne	D.C.	Cheezum, Helen Alberta	Md.
A.B. 1948, Hood College		B.S. 1945, State Teachers College,	
Chaney, James William	D.C.	Salisbury	
A.B. 1949, Catholic University of		Chemerow, Ben-Ami Samuel	D.C.
America		B.S. 1949, University of Wisconsin	
Chaney, John Lester, Jr.	D.C.	Chen, Bu-Shing	Va.
Chang, Chien Chung	China	Chennault, Joe Young	La.
A.B. 1933, National Peking Uni-		Chernosky, Edwin J.	Tex.
versity, China		Chernuchin, Paul	N.Y.
Chang, Ching Gwan	D.C.	A.B. 1947, University of Michigan	W.Va.
Chang, Richard I-Feng	China	Cherrington, Jane Bell	D.C.
A.B. 1943, St. John's University,		Cherry, John Claxton, Jr.	N.Y.
China		Chertoff, Mitchell	Pa.
LL.B. 1949, DePaul University		Chertok, Leonard	Pa.
LL.M. 1949, The George Washington		Chervenak, John	
University		B.S. in E.E. 1934, Carnegie Institute	
Chang, Shih Ju	D.C.	of Technology	
Chaplin, Harvey Reese, Jr.	Va.	M.S. in Ed. 1946, University of	
Chapline, Claudia Beechum	Va.	Pittsburgh	Mass.
Chapline, Mary Adeline	Tex.	Cherwek, Stanley	
Chapman, Allyn Dean	Va.	A.B. 1949, The George Washington	
Chapman, Charles William	Va.	University	Va.
Chapman, David Graham	Pa.	Chesley, Emory Willard	
Chapman, Edward Joseph		A.B. 1948, Western Maryland College	N.Y.
A.B. 1939, Loyola University		Cheslow, Ernest	
Chapman, Elsie Janet	Ind.	B.Ch.E. 1939, College of the City of	
B.S. 1936, Butler University		New York	
Chapman, Winifred LaVerne	Va.	Chesney, Daniel Roger	D.C.
Chapnick, Phyllis Lee	Md.	Chesnut, Robert Thomas Norman	Tex.
Chappel, Martha Ella	Colo.	Chester, Annabelle Johnnie	Calif.
Chappell, Elizabeth McGaw	Tenn.	Chester, Edward H.	Va.
Chapper, Frank Morris	D.C.	Chester, Russell Gilbert	Ohio
Charles, Frederick Isaac	Pa.	A.B. 1948, Baldwin-Wallace College	D.C.
Charnes, Leah	Pa.	Chestnutt, Warren Lynnwood	Pa.
Charuhas, James John	D.C.	Chew, Allen Frank	
Chase, Jay Valentine	D.C.	A.B. 1949, The George Washington	
B.S. 1933, United States Naval		University	Va.
Academy		Chewning, Wilda Jane	Md.
M.S. 1942, Massachusetts Institute		Chichester, Sidnor Tebbs, Jr.	D.C.
of Technology		Chidsey, Thomas Campbell	D.C.
Chase, Marjory Ruth	D.C.	Chieu, Bud Ming	Md.
Chase, Raymond Chandler, Jr.	N.H.	Child, Daniel Keigwin	Md.
B.S. 1949, University of New		Childe, Laurel	
Hampshire		B.S. 1945, University of Chicago	
Chase, Robert Thompson, Jr.	Pa.	A.M. 1946, Columbia University	Tex.
Chase, Russell Clifton	N.H.	Childers, H. Malcolm	Va.
Chase, Ruth Judith	Md.	Childs, James Thornton	D.C.
A.B. 1935, The George Washington		Chillari, Josephine Catherine	N.Y.
University		Chillemi, Richard Leo	D.C.
Chasey, Harry Lewis	Va.	Chin, Robert	
B.S. in Ed. 1934, Rutgers University		A.B. 1949, The George Washington	
Chasnov, Bernard	Va.	University	Md.
B.S. 1939, M.S. in Ed. 1940, College		Chinn, Howard Ersel	Calif.
of the City of New York		Chinn, Ruby	Va.
Chason, Aubrey Thelmon, Jr.	Va.	Chipman, Marcia Ann	D.C.
Chassan, Jacob B.	D.C.	Chiringas, Persephone	Pa.
B.S. 1939, College of the City of		Chiselsky, Albert Edward	Miss.
New York		Chisholm, David Hugh	
A.M. 1949, The George Washington		B.B.A. 1947, A.B. 1949, University	
University		of Mississippi	



Chism, Robert Loran	Md.	Chudzik, John Stephen	N.Y.
Chisolm, Hugh Eugene	D.C.	A.B. 1948, The George Washington University	
Chittenden, Joe Daniel, Jr.	D.C.	Chun, Chu Man	Korea
A.B. 1949, The George Washington University		Church, Abiah Adelbert	Fla.
Chittenden, Thomas Ransom	Va.	A.B. 1948, The George Washington University	
A.B. 1941, University of Illinois		Church, Frederick Lewis, Jr.	Va.
Chleck, David Jack	N.Y.	B.S. in B.A. 1943, American University	
B.S. 1948, College of the City of New York		Church, Jane Otela	Va.
Choate, Mary Elizabeth	Okla.	A.B. 1948, University of South Carolina	
B.S. 1930, M.S. 1941, Oklahoma Agricultural and Mechanical College		Church, Lloyd Eugene	Md.
Chocola, Jack Robert	Pa.	A.B. 1941, West Virginia University	
B.S. 1948, West Virginia University		D.D.S. 1944, University of Maryland	
Chocola, Richard Adolph	Pa.	Church, Maury Curtis	Va.
Choisser, Roger Morrison, Jr.	D.C.	Churchill, Morton Vincent	D.C.
Chojnacki, Michael George	Pa.	A.B. 1941, The George Washington University	
Chorost, Helen	N.Y.	Chwastyk, Adolph Marcel	N.J.
Chorosey, John Marian	D.C.	B.S. in E.E. 1949, Rutgers University	
Choulas, James George	N.Y.	Ciaquinto, Eugene Louis, Jr.	Conn.
LL.B. 1949, The George Washington University		Ciarrocca, Louis, Jr.	N.J.
Chow, Chien	D.C.	Ciarrochi, Eli	Mass.
B.S. in M.E. 1937, Chiao-Tung University, China		Ciavarra, Vincent Alexander	N.J.
Chow, Dorothy Wei	D.C.	Cibley, Lawrence Jay	Mass.
Chow, Herbert Lo-Tien	D.C.	Cicala, Fred Frank	Md.
Chowning, Katherine Louise	Ind.	B.S. 1948, Wilson Teachers College	
Chramiec, Alexandra Wanda	Va.	Cifelli, Armand	N.J.
A.M. 1949, The George Washington University		Ciker, Fred	Md.
Christ, Christ C.	D.C.	Cilento, Bob Frank	N.J.
Christ, Lorene Ethel	Pa.	Cimkowski, Edwin William	Pa.
Christeller, Norman Lee	D.C.	Ciska, John Edward	Iowa
A.B. 1943, Oberlin College		Cisna, Frances Lathrop	Va.
Christensen, Clarence Peter	Md.	B.S. 1950, The George Washington University	
Christensen, Earl	Mont.	Cissel, John Patrick	D.C.
A.B. 1943, University of Montana		Citrenbaum, Bernard Francis	D.C.
Christensen, Warren Alfred	Md.	Civffreda, Albert Joseph	D.C.
Christenson, Donald Edward	Nev.	Cizek, James Francis	Md.
Christian, Leonard D.	Okla.	Clagett, Marshall Dement	D.C.
Christian, Oren Randolph	Calif.	Clancey, John Douglas	Ohio
M.S. 1948, United States Naval Postgraduate School		Clancey, John Thomas	Md.
Christian, Walter	N.J.	Clancy, Philip Christopher	N.Y.
Christian, Wayne Edward	Iowa	Clare, James Hager	Ohio
Christiansen, Birthe	Va.	Clark, Alfred James	Md.
Christiansen, Fred Kjargaard	Nebr.	Clark, Allen Culling	D.C.
B.S. 1937, Midland College		A.B. 1949, The George Washington University	
Christie, Edward Ashby	Mass.	Clark, Arthur James, Jr.	D.C.
Christoff, Michael George	Pa.	Clark, Belvia Elaine	Va.
Christofferson, Robert Edward	D.C.	A.B. 1946, The George Washington University	
Christoph, Kathryn Helen	D.C.	Clark, Boswell Johnson, Jr.	Va.
Christopher, Donald John	N.Y.	Clark, Buell H.	D.C.
Christopher, Eldon Washington	Va.	B.S. 1932, West Virginia University	
B.S. 1926, College of William and Mary		Clark, Charles Willard	Oreg.
Christopherson, Olaf Warren	Minn.	Clark, Donald Lewis	Va.
A.B. 1946, The George Washington University		Clark, Donald Roy	D.C.
Christov, Christo Vladov	D.C.	Clark, Edmund Berrigan	D.C.
Christovich, Charles George	Pa.	LL.B. 1949, Harvard University	
Christovich, Stanley Martin	Pa.	Clark, Edward Francis, Jr.	N.J.
Chronaker, George Steve	Md.	Clark, Ernest	Tenn.
Chrysakis, Joseph E.	D.C.	Clark, Ernest Chapman, Jr.	Va.
Chu, Euclid	N.Y.	Clark, Eugene Evans	Va.
Chu, Kwang Che	China	Clark, Frances Elizabeth	Va.
A.B. 1937, National Institute of Political Sciences, China		Clark, Francis Joseph	Va.
Chuck, Wong	Hawaii	Clark, George Henry, Jr.	D.C.
Chudzik, Adeline Celia	N.Y.	B.S. 1949, The George Washington University	
		Clark, George Ordway	Va.
		Clark, Gilbert Reed	D.C.
		Clark, Gwendolyn Jane	D.C.



Clark, Henry Caldwell, Jr.	N.J.	Cleary, Rita Agnes	D.C.
Clark, James Farrell	Md.	Cleary, Vincent Walter	Ill.
Clark, James Harry, Jr.	Va.	Cleaver, William Frank	D.C.
Clark, James Joseph	Fla.	Cleek, Given Wood	Va.
B.S. 1949, Georgetown University		Clegg, Eleanor Standish	D.C.
Clark, James Leonard	Ga.	Clemens, Charles Wesley, Jr.	Va.
Clark, Jane Ida	D.C.	Clement, Charles Bennett	D.C.
A.B. 1948, Cornell University		Clement, Mildred Davis	D.C.
Clark, Jocelyn	Fla.	A.B. 1938, New Jersey State Teachers College	
Clark, John Raymond	N.J.	Clements, Mary Will	Va.
A.B. 1943, Rutgers University		Clements, Walter Alexander	D.C.
LL.B. 1949, Harvard University		Clements, William Franklin	D.C.
Clark, John Robert, Jr.	Md.	Cleveland, Jesse Peter	Md.
Clark, Lowell Dean	Minn.	Cleveland, Stanley Russell	Va.
Clark, Lyman Ernest	Md.	Clewlow, Carl William	Va.
Clark, Malcolm Cameron	D.C.	A.B. 1949, The George Washington University	
Clark, Mardelle Lilly	Md.	Clewlow, John Clinton	D.C.
A.B. 1919, University of Georgia		Clextan, Edward William	Va.
Clark, Marianne Walton	D.C.	B.S. 1924, United States Naval Academy	
Clark, Maurice Harrison	Md.	M.S. 1929, Massachusetts Institute of Technology	
Clark, Maxine Willa	D.C.	Cliff, Ben A.	Md.
Clark, Patricia	Md.	Clifford, George Minott, Jr.	Maine
Clark, Raymond Dykes	D.C.	Clifford, Margery Pepperell	D.C.
B.S. 1948, University of California at Los Angeles		Clifford, Marvin Butler	Tenn.
Clark, Robert Cobb	Calif.	Clift, Robert Morris	Tex.
Clark, Roland Ellis	Md.	A.B. 1949, The George Washington University	
Clark, Ross Howard	Pa.	Clifton, Ernest Ridley	D.C.
Clark, Ruth Rosalind	Ill.	Clifton, James Newel	Va.
Clark, Sidney B.	N.Y.	Cline, Clyde Lucian	D.C.
A.B. 1947, The George Washington University		A.B. 1929, Bridgewater College	Va.
Clark, Victoria Chaapel	D.C.	Cline, June Antonia	
B.S. 1929, Columbia University		A.B. 1946, Roanoke College	Va.
Clark, William Bert	Ga.	Cline, Mildred Dean	
Clark, William Giddings	Md.	B.S. in Ed. 1944, Madison College	Md.
Clark, William Richard	Va.	Cline, Paul Francis	Mich.
Clarke, Addison	Md.	Clinkston, Philip	
Clarke, Dolores	D.C.	B.S. 1942, University of Michigan	
Clarke, Holden Mast	Va.	M.S. 1944, The George Washington University	N.Y.
Clarke, James Brent	Md.	Clinton, Wilma May	Va.
Clarke, John Harrison Oliver		Cloe, William Weedon, Jr.	
B.M.E. 1943, LL.B. 1948, University of Virginia	Va.	A.B. 1949, College of William and Mary	
Clarke, Lewis Lynn	England	Clokey, Mitchell Chase	Md.
Clarke, Peter Ethelston		Clore, Nona	D.C.
A.M. 1938, Cambridge University	D.C.	Close, David Olaf	N.J.
Clarke, Roy Slayton, Jr.		Close, Franklin John	N.J.
A.B. 1949, Cornell University	Va.	Clois, Albert Morgan, Jr.	Iowa
Clarke, Ruby McNair		Clouser, Jacqueline Wynwood	Va.
B.S. 1929, Winthrop College	Va.	Clouser, William Fleming, Jr.	D.C.
Clarke, Thomas McTyghe		Cloutier, Rita Gertrude	W.Va.
A.B. 1948, The George Washington University		Clover, Charles James	
Clarke, Wilma Phyllis	N.Y.	A.B. 1947, Shepherd College	Nebr.
Clarkson, Julia Ann	D.C.	Clyde, John Francis	Okla.
Clary, Mary	Va.	Clymer, Joan Leach	
A.B. 1917, College of New Rochelle		B.S. 1942, University of Oklahoma	D.C.
Clatterbuck, Bryan C.	D.C.	Coakley, William Talmadge	
Claus, Gwendolyn Ruth	Mo.	A.B. 1948, University of Maryland	Md.
Clausen, Margaret Mary	D.C.	Coates, Augusta Maude	D.C.
Claussen, Peter Henry, Jr.	Nebr.	Coates, Catherine Lyla	Tex.
Clay, Harry Clifton	D.C.	Coates, Gladys Elizabeth	
Clay, Lucas Daniel, Jr.	Va.	B.B.A. 1944, University of Texas	Va.
Clay, Thomas Carolin	Ga.	Coates, Philip David	Wash.
Claybrook, Robert Allan	D.C.	Cobb, Leonard Cowgill	
B.B.A. 1949, Texas College of Arts and Industries		B.S. 1949, University of Washington	D.C.
Clayton, Christopher Sudlow	D.C.	Cobb, Sarah Juanita	Mont.
Clayton, Joseph Dolphin	Va.	Cobb, Thomas Lambert	
Clayton, Robert Edwin	Tex.	B.S. 1949, The George Washington University	
Cleary, Jeanne Audrey	D.C.		



Students Registered

411

Coberly, James Harold	W.Va.	Cohen, Albert Abraham	D.C.
A.B. 1933, A.M. 1938, The George Washington University		Cohen, Bernard	D.C.
Cobert, Arthur Thomas	Va.	Cohen, Bernice Elizabeth	D.C.
Cobert, George William	Va.	Cohen, Betty Lee	D.C.
Coburn, Harriette Howe	D.C.	Cohen, Donald Sidney	D.C.
Coburn, William Hoffman	Mont.	B.S. 1947, University of Maryland	Md.
Cochran, Corinne Haddad	Va.	Cohen, Earl	N.Y.
Cochran, Dean Farrington	Va.	Cohen, Frieda	D.C.
LL.B. 1949, The George Washington University		Cohen, George Joel	D.C.
Cochran, Douglas McCoud	Pa.	Cohen, Harvey Bernard	N.Y.
Cochran, Hewitt	D.C.	Cohen, Herbert	N.Y.
A.B. 1938, Yale University		A.B. 1949, The George Washington University	N.Y.
Cochran, Nancy Lou	D.C.	Cohen, Howard Martin	N.Y.
Cochran, Robert Reid	N.J.	A.B. 1948, The George Washington University	
B.S. in Ch.E. 1944, Tufts College		Cohen, Joel	Md.
Cochran, Robert Thomas, Jr.	Va.	Cohen, Marvin Bernstein	D.C.
B.S. in F.S. 1948, Georgetown University		Cohen, Melvin	D.C.
Cochrane, Frederic	D.C.	Cohen, Melvin S.	N.Y.
Cock, Thomas Charles	Calif.	A.B. 1938, Brooklyn College	
Cockerille, Lydia D.	Va.	B.S. 1949, The George Washington University	
A.B. 1934, New York University		Cohen, Morris	D.C.
Cockfield, Bennie Tillman	D.C.	Cohen, Paul	N.Y.
B.S. 1949, The Citadel		A.B. 1932, College of the City of New York	Ohio
Cockrell, Joy	Md.	Cohen, Ralph Irwin	Ohio
Cocks, Mary Louise	Iowa	A.B. 1943, Washington and Lee University	
Cocroft, Phyllis Kathryn	Va.	Cohen, Richard Edward	D.C.
A.B. 1947, The George Washington University		Cohen, Robert Henry	D.C.
Cocuzza, Joseph	N.J.	Cohen, Robert M.	D.C.
Codd, Grace Bailey	D.C.	Cohen, Rosa Naomi	D.C.
B.S. 1931, Mary Washington College		Cohen, Saul Benjamin	D.C.
Cody, Patrick John	Ind.	A.B. 1949, The George Washington University	
Coe, Anne Hopton	Md.	Cohen, Sheldon Stanley	D.C.
Coe, Charles Frederick	Va.	Cohn, Harold Joseph	Ohio
B.S. 1923, United States Naval Academy		A.B. 1931, Ohio State University	Md.
Coen, Benjamin Wiggins	W.Va.	Cohn, Leonard Earl	Ohio
A.B. 1949, Marietta College		Coil, Emory Alfred	D.C.
Cofer, Justine Donnelly	Md.	Cokenias, Nicholas Trephon	
A.B. 1938, Syracuse University		A.B. 1941, A.M. 1948, The George Washington University	
A.M. 1941, Smith College		Coker, George Meadows, Jr.	D.C.
Coffey, Betty Maxine	D.C.	Coker, Joseph Daniel	S.C.
B.S. 1948, University of Maryland		A.B. 1935, A.M. 1937, Ph.D. 1949, The George Washington University	
Coffey, Claude Ivo	D.C.	Coker, Robert Harry	D.C.
B.S. 1949, American University		Colacicco, Frank	Md.
Coffey, Hubert Franklin	Tenn.	B.S. 1940, United States Military Academy	
Coffey, Richard Eugene	Va.	Colangelo, James Michael	Va.
Coffey, Sarah Verna	Va.	Colberson, Reid Taylor	Va.
B.M. 1927, Texas State College for Women		Colbert, Robert Chester	Pa.
Coffin, Barrett Franklin	Va.	Colborn, Paul Appleby	D.C.
Coffin, Charles Franklin	Utah	Colburn, Katherine Stewart	Va.
Coffin, James Clyde	Minn.	Colby, Grace L. Wolfsohn	Wis.
Coffman, Alice Anton	D.C.	A.B. 1936, University of Wisconsin	
Coffman, Clara Lillian	Va.	A.M. 1937, University of Chicago	
A.B. 1948, The George Washington University		Coldwell, John Marshall	Va.
Coffman, James Clark	Va.	Cole, Andrew Truman	Va.
A.B. 1943, West Virginia University		Cole, Charles Alexander, Jr.	Ga.
Cogan, Thomas James, Jr.	Mich.	Cole, Charles Fletcher	Conn.
A.B. 1947, Wayne University		B.S. 1938, Virginia Polytechnic Institute	
A.M. 1949, Columbia University		Cole, Charles Herbert	D.C.
Coggeshall, Myrtle Edith	Ill.	Cole, Elizabeth Trucks	Va.
Coggins, John Wesley	Va.	A.B. 1948, The George Washington University	
LL.B. 1940, The George Washington University			
Cogswell, June Margaret	D.C.		
B.S. 1942, Wilson Teachers College			
Cogswell, Raymond Louis	D.C.		
Cohan, Philip Cedric	D.C.		



Cole, Enser William, Jr. A.B. 1940, LL.B. 1942, University of North Carolina	N.C.	Collins, Henry Dalton B.S. 1940, Notre Dame University	Va.
Cole, Fenwick Earl	D.C.	Collins, James Francis	Pa.
Cole, George William B.S. 1949, Wilson Teachers College	D.C.	Collins, Joseph	D.C.
Cole, Harry Eugene A.B. 1947, Wittenberg College	Va.	Collins, Joseph John	Pa.
Cole, Marjorie June	Kans.	Collins, Margaret Mary A.M. 1947, University of Maryland	N.Y.
Cole, Milton Burns	Md.	Collins, Michael Joseph	Va.
Cole, Pauline	D.C.	Collins, Morris Russell	D.C.
Cole, Ralph John A.B. 1948, The George Washington University	Pa.	Collins, Paul Thomas	D.C.
Cole, Robert Smith	N.M.	Collins, Samuel James	Pa.
Cole, Walter Harvey, Jr. B.C.E. 1949, The George Washington University	D.C.	Collins, Webster Horace	Md.
Coleman, Beverly Mosby B.S. 1922, United States Naval Academy	Va.	Collins, William Francis	Fla.
LL.B. 1928, The George Washington University	D.C.	Collins, William Royston A.B. 1949, The George Washington University	Va.
Coleman, Carl Shaughnessy	Va.	Collins, William Thomas	N.Y.
Coleman, Eddie Taylor, Jr.	Tex.	Collins, William Timothy	
Coleman, Florence Beatrice A.B. 1933, The George Washington University	Va.	A.B. 1948, Catholic University of America	D.C.
Coleman, George Melchades, Jr.	D.C.	Collopy, Walter Francis Xavier A.B. 1947, Harvard University	D.C.
Coleman, Harvey Ryan	Va.	Colmen, Kenneth Seymour B.A.E. 1946, Georgia School of Technology	
Coleman, Joseph Lustrat	Ga.	M.B.A. 1949, Cornell University	D.C.
Coleman, Juliet Cox A.B. 1927, University of Richmond A.M. 1949, The George Washington University	D.C.	Colmer, James Henry	Puerto Rico
Coleman, LaJoy	Tex.	Colon Gordiany, José	Md.
Coleman, Margaret Anne Baker	D.C.	Colot, Evangeline Wilson	D.C.
Coleman, Mary Ellen B.S. 1937, Madison College	D.C.	Colquhoun, Marjorie Pauline	Ohio
Coleman, Robert Francis	Va.	Columbus, Eugene Gail	N.Y.
Coleman, Robert G., Jr.	D.C.	Colville, Robert Allen	La.
Coleman, Ruth Mary	N.Y.	Colvin, Harold Bradford	D.C.
Coleman, Sanford David	D.C.	Colvin, John Tower	Va.
Coleman, Thomas Joseph	D.C.	Combelic, Donn	
Coleman, Winifred Israel A.B. 1940, The George Washington University		Comfort, James A. B.S. 1947, Ithaca College	Va.
Colevas, Prokopos	D.C.	Comisarow, Paul B.S. 1944, University of Alabama	D.C.
Colglazier, Merle Lee A.B. 1948, University of Colorado	Colo.	Compart, Henry	Md.
Coll, Robert Wilson	D.C.	Compber, Paul Richard, Jr.	Va.
Colley, Shirley Rae A.B. 1948, University of Florida	Fla.	Compton, John Richard	D.C.
Collier, Donald B.S. 1932, Northwestern University	D.C.	Compton, Milton Edwin, Jr.	Va.
Collier, Edwin A.B. 1949, The George Washington University	N.J.	Compton, Ross Harrington B.S. 1947, Massachusetts Institute of Technology	Va.
Collier, Jack Wayne	Va.	Compton, Vera Louise	Va.
Collier, Mabel Louise	Va.	Comstock, Alice May A.B. 1944, Columbia University	Puerto Rico
Collier, Paul Rodney, Jr.	D.C.	Comulada, Gloria Marie M.S. 1948, The George Washington University	Md.
Collier, William Edward	Wash.	Comulada, Manuel	Tex.
Collier, William Lee	Va.	Conant, Dee Roger	Va.
Collier, William R. A.B. 1949, University of Pittsburgh	Md.	Conant, Elizabeth J.	D.C.
Collings, Mary Louise A.B. 1925, Wesleyan College	Va.	Conant, Eugene Lavern	Va.
A.M. 1926, Northwestern University		Conant, Robert Charlton	Calif.
Collins, Dwight Marshall A.B. 1930, Yale University	Md.	Conard, Melvin Le Roy	N.Y.
Collins, Helen Monterey A.B. 1931, Florida State University A.M. 1949, University of Florida	Md.	Conason, Emanuel Voltaire	Md.
		Conaway, Charlotte Ann B.S. 1947, University of Maryland	Pa.
		Conboy, John Anthony B.S. 1948, University of Scranton	R.I.
		Concelia, Katherine E. B.	Pa.
		Concours, Edwin Robert	Nebr.
		Condellario, Richard Paul B.S. 1937, University of Kansas	D.C.
		Condolon, Leo Christy	Md.
		Condon, Theron Elwin B.S. in M.E. 1934, Northeastern University	Va.
		Conger, Harriet Myers A.B. 1939, Smith College	



Congiundi, Nicholas Ronald	N.J.	Cook, Arthur Douglas	D.C.
A.B. 1949, University of Maryland		B.S. 1927, Georgetown University	
Conklin, Charles Robert	Va.	Cook, Carl Frederick	D.C.
Conklin, Robert Orland	Va.	Cook, Charles Leo	Va.
Conley, Betty	Ind.	Cook, Dorothy Butler	Md.
A.B. 1939, Indiana University		Cook, Edith Newman	D.C.
Conley, Kenneth Alvin	D.C.	A.B. 1929, Goucher College	
Conley, Mary Katherine	Va.	LL.B. 1932, Columbia University	
Conlon, James Ambrose	N.Y.	Cook, Emily Adams	D.C.
Conlon, John Francis	D.C.	Cook, Frances Rowena	Ark.
Conlon, Veronica M.	Ill.	Cook, Frederick Andrew	Va.
Connaughton, John Hamilton	D.C.	Cook, Frederick Nelson	Vt.
Connell, Charles Martin	Pa.	Cook, James Manning	N.Y.
Connell, Eugene Ambrose, Jr.	Md.	Ed.B. 1942, New York State Teachers	
Connell, John Gibbs, Jr.	Va.	College, Fredonia	
Connolly, Edward Charles	D.C.	Cook, John Mason	D.C.
Connolly, Francis Becker	La.	Cook, John R.	Md.
Conner, Charles Buford	Md.	B.S. 1946, University of Maryland	
B.S. 1947, Washington and Lee		Cook, Marion Francis	Md.
University		Cook, Mary Mercer	D.C.
Conner, John Paul	Pa.	Cook, Paul William	Calif.
Conner, Ray Bradford	D.C.	Cook, Rae Constance	Pa.
Conner, William Madison	Md.	B.S.C. 1940, Temple University	
Connerton, Joseph John	Pa.	Cook, Richard Charles	Va.
B.E.E. 1949, Catholic University of		Cook, Robert Carleton	D.C.
America		Cook, William Gwynne	Va.
Connerton, Robert Joseph	Pa.	Cook, William Thomas	D.C.
B.S. in B.A. 1949, University of		Cooke, David Ohlmer	N.Y.
Scranton		B.S. 1941, Buffalo State Teachers	
Connolly, Barbara	D.C.	College, N.Y.	
Connolly, John Stoddard, Jr.	N.Y.	M.S. 1942, Albany State Teachers	
Connor, Audrey Marie	D.C.	College, N. Y.	
A.B. 1945, Trinity College		LL.B. 1950, The George Washington	
Connor, James Parker	D.C.	University	
B.S. 1949, Georgetown University		Cooke, Edward Andrew	D.C.
Connor, James Robert	W.Va.	Cooke, Edward Andrew	D.C.
A.B. 1939, Fairmont State College		Cooke, Robert George	Va.
Connor, Joseph Daniel	D.C.	Cooke, Susan Newbold	Va.
Connor, Lawrence Day, Jr.	Va.	Cookson, Joseph William	D.C.
Connor, Louis Milton	Md.	Cookson, Raymond Theodore	Kans.
B.S. 1940, Maryland State Teachers		Cooley, Donald Gruver	Va.
College, Frostburg		A.B. 1949, Shepherd College	
M.S. in Ed. 1946, University of		Cooley, Edwin Remick	Kans.
Maryland		A.B. 1954, Municipal University of	
Connor, Thomas Harvey	Md.	Wichita	
Conrad, James Calvin	Va.	Coolick, Allan Bronson	D.C.
Conrad, Paul Rawson	Kans.	Coon, Harold Edward	Md.
B.S. 1949, University of Kansas		Coop, Helene Bernice	D.C.
Conrad, Robert William	Md.	Cooper, Anna Marie	Pa.
Conrad, Shirley Myrtle	Kans.	Cooper, Burton Morris	D.C.
Conroy, Fanny	Peru	Cooper, Carlton Harvey	D.C.
Conroy, James Joseph	Va.	Cooper, Charles David	D.C.
Consolo, Salvatore Anthony	D.C.	A.B. 1948, The George Washington	
Constantinou, Constantine	Greece	University	
A.B. 1949, Columbia University		Cooper, Daniel	D.C.
Conte, Joseph Phillip, Jr.	N.Y.	Cooper, Eileen Cleary	Va.
Conti, Kathryn Chase	D.C.	A.B. 1931, College of New Rochelle	
Conti, Reno Joseph	D.C.	Cooper, George Huners	N.Y.
B.S. in Ed. 1948, University of		Cooper, Grace M.	Mich.
Vermont		A.B. 1947, The George Washington	
Continetti, Frank Edward	N.Y.	University	
Contos, William Harry	D.C.	Cooper, Joseph Emerson	Ind.
Conver, Charles Maximilian	D.C.	A.B. 1938, Indiana University	
A.B. 1949, Swarthmore College		Cooper, Leonard Fredrick	N.J.
Convisser, Israel	D.C.	Cooper, Leonie Erskine	D.C.
LL.B. 1928, Brooklyn Law School		Cooper, Lois M.	D.C.
Conway, Emmett Gaddis, Jr.	Va.	Cooper, Mary Evelyn	Va.
Conway, James Wentworth	D.C.	Cooper, Mattie Augusta	Va.
Conzelman, Gaylord Maurice	Calif.	A.B. 1927, Mississippi State College	
B.S. 1949, Idaho State College		for Women	
Coogan, James Francis	D.C.	Cooper, Paul Allen	D.C.
Coogan, John Patrick	D.C.		



Cooper, Paul David	Md.	Corso, Victor	D.C.
B.S. 1939, Western Maryland College		A.B. 1941, Queens College	N.J.
M.Ed. 1942, University of Maryland		Corson, Elizabeth Wallace	N.Y.
Cooper, Ruth Z.	D.C.	Corte, Joseph Phillip, Jr.	N.M.
B.S. in Ed. 1941, College of the City of New York		Cortez, Ezekiel Casimiro, Jr.	
Cooper, Shelby	Pa.	A.B. 1943, New Mexico College of Agriculture and Mechanic Arts	
Cooper, Suzanne Taylor	D.C.	LL.B. 1948, The George Washington University	
Cooper, Thomas Ernest	N.Y.	Corvin, Alice Elizabeth	D.C.
Cooper, Thomas Schane	D.C.	Corwin, Leonard Joel	N.J.
Cooper, Wesley William	Va.	B.S. 1947, Rutgers University	Md.
LL.B. 1947, The George Washington University		Cosgrove, Thomas Edward	D.C.
Coover, Mullen Ogle	W.Va.	Cosman, Alvin	D.C.
A.B. 1942, Shepherd College		Cossio, Manuel Fernando	D.C.
M.S. 1946, West Virginia University		Costa, Jasper Silva	
Cope, Harland Burleigh	Kans.	A.B. 1927, Brown University	
A.B. 1946, University of Kansas		LL.B. 1931, Cornell University	
Copeland, Lynn Preston	D.C.	LL.M. 1948, Georgetown University	Va.
A.B. 1943, Hunter College		Costa, Louise Carrel	
Copeland, William Long	Pa.	A.B. 1932, Judson College	N.Y.
Copes van Hasselt, Roelof Hendrik	Canada	Costanzo, Sue	Puerto Rico
Coppel, Arthur	N.Y.	Costas, Raul, Jr.	
A.B. 1949, University of Virginia		B.S. 1949, Villanova College	D.C.
Copperman, Howard Robert	Pa.	Costella, Helen Delores	Maine
Copsey, Jesse Fabian	Va.	Costello, Bartley Alexander	W.Va.
Corbets, Eugene Paul	Ohio	Costello, Elmer Price	
A.B. 1949, Mount Union College		A.B. 1949, Marshall College	D.C.
Corbin, James Gerard	D.C.	Costello, Eugene Aloysius	Calif.
Corbin, James Rupert	Va.	Costello, Joseph Daniel	
Corcoran, Sarah Rose	D.C.	B.S. 1947, United States Naval Academy	D.C.
A.B. 1920, Vassar College		Costello, Marilyn Louise	Calif.
A.M. 1936, Columbia University		Costello, Richard Edward	
Cordell, Frank Paul	Md.	LL.B. 1934, University of California	
Cordelli, Peter Paul	Pa.	LL.M. 1948, The George Washington University	
Corder, Lucille D.	Nebr.		
Cordes, Elizabeth Marie	D.C.		
Cordova, Ralph	N.Y.	Costello, Thomas Joseph	Va.
Corey, W. Robert	D.C.	Costo, Raul Jose	Cuba
A.B. 1948, Syracuse University		Cote, Daniel Narcisse	Va.
Corkery, Dorothy Katherine	Va.	Cotham, Robert Bruce	D.C.
Corkhum, William Russell	Mass.	Cotten, Rebecca Ann	Va.
A.B. 1949, Syracuse University		Cotter, Francis Aloysius	Md.
Corkran, Shirley Stoddard	D.C.	LL.B. 1949, The George Washington University	
A.B. 1945, A.M. 1946, Carleton College		Cotter, John	Mass.
Corkum, Anna Elizabeth	Mass.	A.B. 1924, Yale University	Ill.
Corn, Palmer Boyd	Ky.	Cotton, Martha	D.C.
B.S. 1939, Murray State Teachers College, Ky.		Cottrell, Walter Nevins	D.C.
Cornelius, Miriam Keeler	D.C.	Cottrill, James Albert	Tenn.
A.B. 1920, Mount Holyoke College		Couch, Howard William	Pa.
A.M. 1926, Radcliffe College		Coughlin, Richard James	
Cornell, Geraldine	N.Y.	B.S. 1941, New York State Teachers College, Buffalo	D.C.
B.S. 1941, Catholic University of America		Coulombe, Raymond Armond	
Cornell, Lacy Paul	Md.	B.M.E. 1948, The George Washington University	N.H.
A.B. 1949, The George Washington University		Coult, May	
Cornish, LeRoy William	D.C.	A.B. 1947, The George Washington University	
Cornwell, Martha Daniel	D.C.		
Cornwell, Murray Paul	Va.	Coulter, Patricia Florence	Mich.
Cornwell, Richard Edwin	Va.	A.B. 1945, University of Michigan	D.C.
A.B. 1946, Hampden-Sydney College		Coultrip, Raymond Laverne, Jr.	Ill.
Corrado, Michael Anthony	D.C.	Counelis, James Anthony	N.Y.
A.B. 1949, The George Washington University		Coupar, Elizabeth Mary	
Corrado, Rosalie Celeste	D.C.	B.S. 1939, Madison College	D.C.
A.B. 1947, American University		Couper, William Paul	D.C.
Corridon, John Raymond	Md.	Couperthwaite, Charles	D.C.
A.B. 1939, University of Maryland		Courie, Wadie Alexander	
LL.B. 1942, The George Washington University		B.S. 1948, Georgetown University	D.C.
		Courtis, Constantine	D.C.
		Courtney, Gilbert Rodda	D.C.
		Courtney, Jack Lanier	



Courtney, Robert Lawrence	Va.	Craighill, Mary Nute	Mass.
Courtright, Ann	Md.	Crain, Francis Drummond	D.C.
Cousins, Helen Loretta	D.C.	Crain, Ralph Rendell	Va.
Covello, Vincent Anthony	N.Y.	Cram, Charles Daniel	Mass.
Cover, Richard Gordon	D.C.	B.S. 1949, Georgetown University	
Covert, Katherine Elizabeth	D.C.	Cramer, Patricia Ann	D.C.
A.B. 1947, Wake Forest College		B.S. 1949, Wilson Teachers College	
Coviello, Marcel Anthony	D.C.	Crammond, James Darwin	D.C.
Covington, Christine Vianna	Miss.	Crampler, Roland	D.C.
Cowan, Robert Charles	D.C.	Crandell, William Palmer	Md.
Coward, James Smith	Tenn.	Crane, Elizabeth Weems	Md.
Cowart, Daniel Couch	Tenn.	B.S. 1940, Towson Teachers College,	
Cowell, Charles Ellwood, Jr.	Pa.	Md.	
A.B. 1949, The George Washington		Crane, Esther Sibyl	N.M.
University		A.B. 1949, The George Washington	
Cowie, Franklin Garrett, Jr.	Va.	University	
Cowie, Margaret Helen	Ohio	Crane, James Fifield	D.C.
Cowles, Frank Lyle, Jr.	Va.	B.S. 1944, Harvard University	
Cowles, Truman David, Jr.	Conn.	A.M. 1948, University of California	
B.S. 1944, Franklin and Marshall		Cranford, John Ringer	Va.
College		Cranford, Lucille L.	Md.
LL.B. 1949, Catholic University of		Crank, Kenneth Earl	D.C.
America		Crank, Terrell Harvey	Va.
Cowling, James Edward	D.C.	Crankshaw, Harold George	D.C.
Cox, Alfred Alexander	Ark.	B.S. 1928, Carnegie Institute of	
B.S.E. 1948, Arkansas State Teachers		Technology	
College		A.M. 1932, Cornell University	
Cox, Chester Elwood, Jr.	D.C.	Crapster, Louis R.	Md.
Cox, Daniel Alpha	D.C.	Crassa, Anthony Rocco	Conn.
Cox, Donald Gilmer	D.C.	Crassas, William Constantine	D.C.
Cox, George Joseph	Pa.	Cratty, Thomas Dodds	Pa.
Cox, Herman Elmer	S.C.	Crawford, Audrey Lorraine	D.C.
Cox, LaVerne A.	Nebr.	Crawford, Faith Flora	S.C.
Cox, Omer Loraine	Ill.	B.S. 1948, University of South	
Cox, Sidney	Maine	Carolina	
A.B. 1948, The George Washington		Crawford, George Robert	D.C.
University		Crawford, Howard Irvin	Iowa
Cox, Tiddie L.	La.	Crawford, Jennie Irene	D.C.
A.B. 1947, The George Washington		Crawley, Roy Wallace	D.C.
University		A.B. 1948, University of California	
Cox, William Davis	Ala.	at Los Angeles	
Cox, William I., Jr.	Va.	Creamer, Charles Robert, Jr.	Va.
Coyle, Kathryn Rosamond	R.I.	A.B. 1950, Shepherd College	
A.B. 1935, Emmanuel College		Creamer, Francis Joseph	D.C.
B.Ed. 1936, Rhode Island College of		Creamer, Joseph Patrick	D.C.
Education		Creamer, Paul James	D.C.
Coyne, Joseph Patrick	D.C.	Credle, Joseph Swindell	Md.
A.B. 1939, St. Ambrose College		Creedon, Agnes Cecelia	D.C.
Coyner, Owen Faber	Md.	Creekmore, Janie Geraldine	Miss.
Cozan, Lee William	Md.	Creekmore, Russell Whitfield, Jr.	Va.
A.B. 1948, American University		Creesy, William Martin	Md.
Cozmyk, John	W.Va.	A.B. 1949, Duke University	
Cozzi, Aldo John	N.Y.	Cregger, Hugh Cassell, Jr.	Va.
B.S. 1946, M.E. 1947, Stevens		LL.B. 1950, The George Washington	
Institute of Technology		University	
Craddock, William Wood	Md.	Creighton, William James	Mass.
Craft, Alvis Mahlon	D.C.	Cremens, Robert Williamson	Md.
Craft, Robert Harold	D.C.	Creson, David Boone	D.C.
Craft, Robert Wayne	D.C.	Cresthull, Esther	N.J.
Crafton, Dorothy Warren	Va.	Creswell, Richard Nicholas	D.C.
Cragoe, John Henry	D.C.	Creveling, Cyrus Robbins	D.C.
Craig, Camille Jacob	D.C.	Crewe, William Penn	Md.
B.S. 1942, The George Washington		Crews, Norma Jean	D.C.
University		Crichton, Charles Franklin	D.C.
Craig, Cecile Elizabeth	D.C.	Crickenberger, Ira Jethro	Va.
A.B. 1947, Clark University		Crickenberger, John Lee	Md.
Craig, Owin Richardson	D.C.	A.B. 1948, American University	
B.S. in Eng. 1948, The George Wash-		Crider, James John	D.C.
ington University		Crim, Catherine Isabelle	Va.
Craig, George Arthur	Va.	Crim, Margaret Ann	Ind.
Craig, Neil	Md.	B.S. 1947, Wilson Teachers College	
Craig, Willa Maxine	Tenn.	Crisp, John Kibler, Jr.	Ga.
Craig, William Franklin	Va.	Criss, Emma Hamrick	W.Va.



Crissinger, Don David	Ohio	Cudlipp, Irene M.	Md.
Criswell, Howard Donald	D.C.	B.S. 1926, Johns Hopkins University	
Critchfield, Burke McClure	Va.	A.M. 1935, Columbia University	Va.
Croasdell, Cameron Walter	Fla.	Culbertson, Reid Taylor	S.C.
Croasmun, Homer Oliver	Va.	Culbertson, Mary Florence	
Crofton, Ann Marie	Mass.	A.B. 1937, University of South	
Crogan, John Charles	Va.	Carolina	N.Y.
Crombie, Eleanor Louise Brown	Va.	Culhane, Robert William	Va.
Crone, John Felix	Tex.	Cullen, Darla Lee	D.C.
A.B. 1937, University of Texas		Cullen, Frank	Va.
Cronin, Edmund Bertram	Md.	Cullen, Frank Haywood	
Cronin, G. S. Homer	Mass.	B.S. in Eng. 1949, The George	
Ph.B. 1937, Holy Cross College	N.Y.	Washington University	Va.
Cronin, James Joseph	Md.	Cullen, John William	
Cronk, Duane Louis	Minn.	A.B. 1949, University of California	
Cronk, Edwin Monroe		at Los Angeles	D.C.
A.B. 1941, Cornell University		Cullen, Joseph Daniel	Fla.
Crook, Frank Whittaker	Mass.	Cullen, Margaret Mary	N.H.
Crooker, Barbara Travis	D.C.	Cullen, Marie Agnes	Mass.
A.B. 1944, Carleton College		Cullen, Matthew Joseph, Jr.	
Crooks, Robert Gladden	Mass.	A.B. 1946, Harvard University	Ohio
B.S. 1949, M.S. 1949, Massachusetts		Culler, Paul Joseph	D.C.
Institute of Technology	Va.	Culp, Theodore Francis	N.Y.
Croom, William Puryear III		Culpepper, Robert Everett	
A.B. 1947, University of Virginia	Iowa	A.B. 1948, The Citadel	Pa.
Crosby, Herbert Lee	D.C.	Culver, William Bruce	D.C.
Crosby, John Raymond	Va.	Cumberland, Walter Lewis	D.C.
Crosby, Wallace Dodds	Mass.	Cummer, John Robert	Iowa
Cross, Calvin George	Iowa	Cummings, Diane May	D.C.
Cross, Dan Norman	D.C.	Cummings, Eileen Jane	
Cross, George Franklin, Jr.	D.C.	A.B. 1949, The George Washington	
Cross, George Joseph	Calif.	University	Va.
Cross, Theodore Sherman	Okla.	Cummings, Frank	D.C.
Crossfield, Louree Tommy		Cummings, George Patrick, Jr.	Oreg.
A.B. 1934, Central State College,		Cummings, Jack	D.C.
Okla.	D.C.	Cummings, Lilla Burt	
Crosswell, Harry Bennett	N.Y.	A.B. 1949, The George Washington	
Crouch, Hasell Wilkinson	Idaho	University	Conn.
Crouch, Robert Brighton		Cummings, Martin William	Mo.
B.S. in C.E. 1949, University of		Cummings, Robert Emmet	D.C.
Idaho	Va.	Cummings, Samuel	
Crowder, Herbert Randolph	D.C.	A.B. 1949, The George Washington	
Crowe, Vincent James	Md.	University	D.C.
Crowell, Jack		Cummins, William Edwin	
B.S. 1947, The George Washington		M.S. 1940, Webb Institute of Naval	
University	D.C.	Architecture	D.C.
Crowell, William Robert	Mass.	Cumpiano, Brunilda Edmee	Md.
Crowley, James Joseph	Tenn.	Cuniberti, John Stow	
Crowley, James Worthington	D.C.	B.S.E. 1949, Princeton University	D.C.
Crowley, John William		Cunningham, Carolyn Maryclaire	Okla.
A.B. 1939, College of the City of		Cunningham, Catherine Beatrice	Va.
New York	N.Y.	Cunningham, Dewey Junior	
Crowley, Thomas Michael	Va.	B.M.E. 1947, University of Louisville	Va.
Crowther, Dean Kay	D.C.	Cunningham, Edith Virginia	
Crozier, Eleanor Elizabeth	D.C.	A.B. 1947, The George Washington	
Cruden, Joseph C.	Fla.	University	Md.
B.S. 1942, Georgetown University	Va.	Cunningham, Grace Faupel	Pa.
Cruiger, Flossie Genevieve		A.B. 1948, Goucher College	Va.
Crum, Frances May		Cunningham, John Edward	Mass.
A.B. 1940, Morehead State Teachers		Cunningham, Mary Jane Catherine	Va.
College, Ky.	Va.	Cunningham, Raymond Joseph	
Crumley, Howard Lee	W.Va.	Cunningham, Robert Kuhlman	N.Y.
Crummett, Harvey Bernard	D.C.	A.B. 1949, University of Michigan	N.J.
Crummett, John David	Va.	Curley, Helen Carolyn	Va.
Crump, George Aubrey	N.C.	Curley, John Lawrence	Ala.
Crumpler, Roland	N.Y.	Curley, Michael Joseph	Va.
Crupain, Eli N.		Curley, William Henry	D.C.
A.B. 1940, Brooklyn College	Md.	Currie, Hubert Paul	Va.
Crupper, Joseph Lee III	Wis.	Currier, Wade Richardson	
Crye, Dolores Lyle	D.C.	Curran, John Langford	
Cryer, John Barrett	S.C.	A.B. 1949, The George Washington	D.C.
Cudd, George B.	D.C.	University	
Cuddy, William Thomas		Curry, Barbara Ann	



Curry, Bryce Quentin	Ala.	Dalonas, John	Va.
Curry, John Vincent	N.Y.	Dalrymple, James McIver	Va.
Curry, Loretta Jane	S.D.	Dalton, Charles Edward	Va.
Curry, Mary Catherine	D.C.	Dalton, Dionne	Va.
B.S. 1942, New York State Teachers College, Albany		Dalton, Eileen Elizabeth	D.C.
Curry, Michael Paul	D.C.	Dalton, Elizabeth Victoria	Va.
Curry, Rosemary	Pa.	B.S. in Ed. 1942, Madison College	
Curry, Stowers Leigh, Jr.	Va.	Dalton, Martin Frank	N.J.
A.B. 1948, The George Washington University		Dalton, Patricia Gade	Md.
Curtin, Edmund Bernard	D.C.	Dalton, Rea Elizabeth	Va.
Curtin, John Tracy	D.C.	Dalton, Stanley Charles, Jr.	Md.
Curtin, Richard Maurice, Jr.	D.C.	B.S. 1947, Rensselaer Polytechnic Institute	
Curtis, Allen Benjamin	Ohio	Dalton, Thomas James	Va.
B.Ch.E. 1943, Fenn College		A.B. 1949, The George Washington University	
Curtis, John Robert, Jr.	Tex.	Daly, Eleanor Adelaide	Mass.
Curtis, Kenneth Edward	D.C.	A.B. 1944, Pembroke College	
Curtis, Mattie McCain	Va.	Daly, Elizabeth Teresa	Va.
Curtis, Nell M.	D.C.	Daly, Janet Audrey	Va.
Curtis, Norma Lorraine	Md.	Daly, John Joseph	Va.
A.B. 1949, University of Maryland		A.B. 1949, The George Washington University	
Curtis, Robert Edward	Md.	Daly, Phillip Niland	Md.
Curtiss, Jeanne Marie	Md.	Daly, Robert Joseph	D.C.
Cushing, Thomas William	Md.	Damatta, Maria Helena	Portugal
B.S. in E.E. 1949, University of New Hampshire		Dambroski, Stanley George	Pa.
Cushman, Robert Everton, Jr.	Minn.	Damelin, Jack	D.C.
B.S. 1935, United States Naval Academy		B.S. 1942, University of California	
Custard, Robert Franklin	Va.	Dameron, Carlton Sherwood, Jr.	D.C.
Custer, Edward Scheid	Del.	D'Amico, Albert John	D.C.
Cutler, Mary Wilson	Md.	B.S. 1948, American University	
Cutright, Carl Richard	Va.	D'Amico, Lewis Joseph	Ohio
Cutshall, Gail Marie	Pa.	Damon, Horace Burns, Jr.	Maine
Cutting, Maebelle Frances	D.C.	Damren, Frances Sherier	D.C.
Cuttitta, Frank	D.C.	Damron, Charlotte Mooar	Ohio
B.S. 1937, Brooklyn College		A.B. 1940, Wellesley College	
Cwaigiel, Leon	Israel	M.S. 1942, Rutgers University	
Cyr, Robert Joseph	Mass.	Danaher, Thomas Patrick	N.Y.
A.B. 1949, American International College		D'Andrea, Angela Rose	Ill.
		A.B. 1944, Blackburn University	
D		Dane, Genevieve O'Leary	D.C.
daCruz, Daniel	Va.	Dane, Michael Nicholas	Pa.
Daftary, Abolfazl D.	D.C.	Danforth, Murray Snell, Jr.	R.I.
Daggit, Elizabeth Middleton	Va.	A.B. 1948, Yale University	
Dahl, Edward	Md.	Danforth, Robert Compton	Va.
A.B. 1923, Yale University		Daniel, Alice Mae	D.C.
Dahlberg, Richard Ernest	Pa.	Daniel, Bernard H.	D.C.
Dahrting, Bruce Eugene	Tenn.	A.B. 1931, Ouachita College	
B.S. 1938, North Dakota State College		Daniel, Betty Faythe	Ga.
Daley, Jesse Oswald Cleveland	Md.	Daniel, Carlyle Camden	D.C.
Daitz, Bernard David	Va.	Daniel, Jean Ellen	Va.
A.B. 1936, Brooklyn College		Daniel, Neil	D.C.
M.S. 1938, Columbia University		Daniel, Robert Herman	Va.
Dakovich, Anita L.	Calif.	Daniel, William Jeffress	N.C.
D'Albora, Duilio	D.C.	B.Ch.E. 1947, North Carolina State College	
Dale, Carolyn Olson	D.C.	Danielak, Paul Arthur	Mich.
Dale, Edward Preston	Va.	Daniels, Almon Edward	Va.
Dale, John Estes	D.C.	B.S. 1937, University of Florida	
Dale, Leo Rufus	Tex.	Daniels, Howard Kenneth	W.Va.
Daley, John Nicholas	Md.	Daniels, Margaret E.	D.C.
Daley, William John	Mass.	Daniels, Mary Catherine	Md.
A.B. 1941, Tufts College		Daniels, Miles Dewey	Pa.
Dallachies, Albert Fortunato	Va.	Daniels, Richard Gauntlett	Md.
Dallaire, Eusebe Andre	D.C.	Daniels, Thomas John	Pa.
Dallam, Donald Gene	Okla.	Daniels, Walter Melvin	Md.
Dallas, Elizabeth Simms	D.C.	Danilowicz, Henry Julius	D.C.
Dallatore, Roland R.	Wis.	Danilowicz, Pascal Joseph	Md.
Dalley, Donald Leslie	N.J.	B.S. in C.E. 1948, Wilkes College	
A.B. 1948, The George Washington University		Danko, John James	Minn.
		Dannelly, Frank Perry	Ala.
		A.B. 1943, University of Alabama	



Danser, William James	N.Y.	Davis, Carl Clell	Okla.
D'Antimo, Daniel	N.Y.	B.S. 1942, Oklahoma Agricultural and Mechanical College	
B.S. 1948, University of Buffalo	D.C.	LL.B. 1949, University of Oklahoma	Kans.
Danzig, Ada Beverly	D.C.	Davis, Carmen Marcelle	Tex.
Danzig, Solomon Albert	Philippines	Davis, Charles Russell	Tenn.
Daproza, Guillermo D.	R.I.	Davis, Clifford, Jr.	
D'Arezzo, Louis Robert	N.M.	A.B. 1949, The George Washington University	D.C.
Dargan, Marion, Jr.	N.Y.	Davis, Dale Miller	
D'Arienzo, Tony	D.C.	A.B. 1948, The George Washington University	Ohio
Darlin, Lewis R., Jr.	D.C.	Davis, David Stanley	D.C.
Darmstadter, Joel		Davis, Dora Alice	Tenn.
A.B. 1950, The George Washington University	Va.	Davis, Edith Mary	D.C.
Darr, Betty Jane	Mich.	A.B. 1937, King College	
Darr, Harry Frazee	D.C.	Davis, Edna Caroline	
B.S. 1942, Wilson Teachers College	Pa.	A.B. 1937, The George Washington University	
Darragh, Roberta Leechman		A.M. 1942, American University	Va.
Darrenhirsch, Albert		Davis, Edward French	
B.S. 1947, Temple University	Va.	B.S. in Eng. 1935, The George Washington University	D.C.
Darroch, John Donald		M.S. 1941, University of Maryland	
A.B. 1947, A.M. 1949, University of Michigan	Mich.	Davis, Elsie Marie	
Daroch, Virginia Therese	Va.	B.S. 1941, New Haven State Teachers College	
Darsch, Earl Clement		A.M. 1949, The George Washington University	N.J.
A.B. 1941, Western Maryland College	La.	Davis, Elton D.	Md.
Dart, Albert Laplace		Davis, Esther Packman	Va.
A.B. 1934, LL.B. 1937, Tulane University	Va.	B.S. 1934, University of Pennsylvania	
Daskam, Harry Mortimer	La.	Davis, Evelyn Smalling	
Daspit, Lawrence Randall		A.B. 1949, The George Washington University	Md.
M.S. 1937, University of California	D.C.	Davis, Ewin Paul	
Datlow, Donald William	N.Y.	A.B. 1949, Washington College	Vt.
Daube, Robert Walter	Ky.	Davis, Florence Lola	
Dauer, John Walter	D.C.	B.S. in H.E. 1944, University of Vermont	D.C.
Daugherty, Floyd Norton, Jr.	Ind.	Davis, George, Jr.	Md.
Daugherty, Mary Barbara	Va.	Davis, Grace Ann	D.C.
Daussman, Grover Frederick	D.C.	Davis, Grace Anne	Md.
Daut, William Laurence, Jr.	S.C.	Davis, Harry Edward	La.
Davenport, Billy Allen	Ohio	Davis, Helen Cloney	Va.
Davenport, Catherine Shannon	Va.	Davis, Herbert Lowell	Va.
A.B. 1949, The George Washington University		Davis, Hilda Jean	Ohio
Davenport, Milton Monroe	Va.	Davis, James Cox III	D.C.
Davenport, Rosemary Jean	Va.	Davis, James Elijah	Va.
A.B. 1949, College of New Rochelle	Pa.	Davis, James Frazier	
Davich, Michael		Davis, James Vincent, Jr.	
B.S. in E.E. 1948, University of Pittsburgh	Md.	B.S. 1949, The George Washington University	Md.
David, George E.	Ind.	Davis, Jeanne Marie	Calif.
David, Maurice Allen	N.Y.	Davis, John Alexander, Jr.	
Davidson, Chester Peter	Colo.	A.B. 1921, Marshall College	
Davidson, Dale Russel	Va.	A.M. 1927, University of Michigan	
Davidson, Edgar Moore, Jr.	N.Y.	B.S. 1938, M.S. in Ed. 1940, Ohio University	Va.
Davidson, Frank Joseph	D.C.	Davis, John Eisele, Jr.	D.C.
Davidson, Herbert Donald	Kans.	A.B. 1949, University of Maryland	Mass.
Davidson, James Frederic		Davis, John Raymond	Va.
A.B. 1945, Yale University	N.C.	Davis, John Wentworth	D.C.
Davidson, May		Davis, Joseph Howe	D.C.
B.S. 1940, University of North Carolina		Davis, Kenneth Lee	Md.
Davidson, Roy Aaron	D.C.	Davis, Lawrence Richard	Ala.
Davies, Edith Maurice	D.C.	Davis, Leroy Charles	
Davies, John Rhys		Davis, Louis Reid	
A.B. 1946, University of North Carolina	D.C.	A.B. 1942, Birmingham-Southern College	Conn.
Davis, Akin Thornwall	D.C.	Davis, Martin Thomas	
Davis, Andrew Nathan	D.C.	B.S. 1948, Rensselaer Polytechnic Institute	
Davis, Archie Enright	Md.		
B.S. 1949, Georgetown University	Tenn.		
Davis, Bobby Copeland			



Davis, Mary	D.C.	Day, John Sanford	Va.
Davis, Mary Jane	D.C.	B.S. 1925, United States Naval Academy	
Davis, Paul Lee	D.C.	Day, Louise Duvall	Va.
B.S. 1947, M.S. 1948, The George Washington University		Daz, Helen Jane	D.C.
Davis, Phyllis Joan	Pa.	B.S. 1944, Wilson Teachers College	Calif.
Davis, Raymond Arthur	Ohio	Dea, Franklin	
A.B. 1949, The George Washington University		A.B. 1948, University of Maryland	D.C.
Davis, Richard Frantz	Va.	Deadwyler, Carl Morris	D.C.
Davis, Richard Milton	Md.	DeAgro, Richard Parker	N.C.
Davis, Richard Nathan	Va.	Deal, Laurie Joe	
Davis, Robert Hall	D.C.	B.S. 1944, Lenoir-Rhyne College	Va.
Davis, Robert Herbert	Conn.	Deam, Keven Aida	Md.
A.B. 1946, M.S. 1949, Indiana University		Deam, William Paul	D.C.
Davis, Robert Hugh	D.C.	Dean, Benjamin Franklin	Ga.
Davis, Robert Lee	D.C.	Dean, Betty	Kans.
Davis, Robert Meness, Jr.	Calif.	Dean, Betty Pearl	N.C.
A.B. 1948, The George Washington University		Dean, Carl Lee	Md.
Davis, Robert Walker	D.C.	Dean, Frank Atwood	Tenn.
Davis, Roderick Clinton	D.C.	B.Ch.E. 1941, University of Toledo	Mich.
Davis, Sadye Jane	Pa.	Dean, Frank B.	Va.
A.B. 1947, The George Washington University		Dean, George Ross	D.C.
Davis, Sidney Robert	Calif.	Dean, Gertrude Mary	D.C.
Davis, Thomas Frederick	Va.	Dean, Louise Blalteslee	
B.S. in Ed. 1935, Bloomsburg State Teachers College, Pa.		A.B. 1919, Wellesley College	D.C.
Davis, Thomas McLellan, Jr.	D.C.	Dean, Mary Kendrick	Va.
A.B. 1948, The George Washington University		Dean, Mills III	Mo.
Davis, Thomas Walker	D.C.	Dean, Robert Murry	Conn.
Davis, Thomas Walker III	Tenn.	Dean, Thompson	
A.B. 1935, Vanderbilt University		A.B. 1916, Harvard University	Va.
B.S. 1939, United States Military Academy		Dean, Willis Calvin	D.C.
Davis, Virginia Lee	Mass.	deAndrade, Gentil Leite	N.Y.
B.S. in Ed. 1938, Boston Teachers College		DeAngelis, Louis Benjamin	Va.
Davis, Vivian Elizabeth	Mich.	DeAngelis, Quinty Carl	N.C.
Davis, Winston McStuart	Va.	Dear, Frances Brook	Ohio
B.S. 1947, Georgetown University		Deasy, John Paul	
Davison, Mark Leonard	D.C.	A.B. 1948, The George Washington University	Pa.
Davison, Martin Louis	D.C.	DeBarr, John Richard	Ohio
B.S. 1950, The George Washington University		A.B. 1947, Bucknell University	R.I.
Davison, Robert McCloud	D.C.	DeBlasis, Samuel Joseph	Mich.
Davitt, Edward Patrick	Va.	DeBlois, Jean Paul	
Dawkins, John Tyler	D.C.	DeBruin, Wesley	
Dawn, Carroll William	D.C.	B.S. in E.E. 1946, Illinois Institute of Technology	D.C.
Dawson, James Alfred	Va.	DeBurr, Mary Margaret	Mich.
Dawson, Myldred Guppton	D.C.	A.B. 1947, The George Washington University	Del.
A.B. 1940, Eastern Carolina Teachers College, N.C.		Dec, Lawrence Louis	
Dawson, Robert Martin	D.C.	DeCamara, Richard Paul	
B.Mus. 1939, Catholic University of America		A.B. 1949, The George Washington University	D.C.
Dawson, Shelton Phelps	D.C.	DeCaro, Beatrice Wehrenberg	D.C.
Day, Calvin Woodward	Conn.	DeCesare, Rita Lucille	N.Y.
Day, Clayton Lavern	D.C.	Decher, John Erich	
B.S. 1923, C.E. 1929, Iowa State College of Agriculture and Mechanic Arts		B.S. 1940, Lehigh University	D.C.
J.D. 1950, Drake University		Dechter, Gerald Yale	D.C.
Day, DeVere Lester	Va.	Deck, Charles Ormond	D.C.
B.S. 1925, United States Naval Academy		Deck, William Meade	D.C.
Day, Ernest Herbert	Ohio	Deckelbaum, Stanley	Md.
A.B. 1941, Oberlin College		Decker, Charles Seymour, Jr.	D.C.
Day, Howard MacDonald	D.C.	Decker, Charlotte Burch	
		B.S. 1939, Wilson Teachers College	W.Va.
		Decker, George Elwood	N.Y.
		Decker, Louis	Oreg.
		Deering, Harold John	D.C.
		Dees, Lola Tidwell	D.C.
		Deeter, William Taylor	
		A.B. 1948, The George Washington University	Tex.
		Deets, Clifford	N.Y.
		DeFeis, Peter Pat	



Defenderfer, Arthur William, Jr. B.S. 1948, Lehigh University	D.C.	de Luna, Frederick Adolph Del Vecchio, Claire Lee	Md. D.C.
Defreitas, Edward Neville A.B. 1946, The George Washington University	Va.	Demaree, Kenneth Dawson B.S. 1949, University of Maryland	Md.
DeGarmo, Charlotte Lou	D.C.	De Marr, Frederick Stanley A.B. 1949, University of Maryland	D.C.
DeGast, Leonard Arie	Md.	Demas, Esther Peter	N.J.
Degee, Daisy Georgette	Belgium	Dembling, Paul Gerald A.B. 1940, A.M. 1942, Rutgers University	Md.
Degen, Carl George, Jr. de Graeff, Herms Marie	D.C.	Dembrow, Daniel William B.S. 1942, The George Washington University	Hawaii
DeGrandi, Joseph Anthony B.S. 1949, Trinity College	Conn.	Demetz, Mary Katherine	Va.
Dehnel, Margaret Lewis Ed.B. 1939, University of Toledo	Ohio	Dempsey, Donald Crammer	D.C.
Deibler, David Hobson, Jr.	D.C.	Dempsey, Howard Calvin	Pa.
Deichler, William Edgar A.B. 1949, University of Maryland	Ohio	Dempsey, James Paul B.S. 1943, University of Scranton M.S. 1949, Columbia University	D.C.
Deiderich, Howard Carl	D.C.	Dempsey, William Edward	D.C.
Deigen, Shirley Norma	Va.	Demshock, John Joseph	Va.
Deily, Francis Wilson	Md.	DeMurguiondo, Helen Stuart B.S. 1945, College of William and Mary	Va.
Deise, Richard Albert	D.C.	Denbo, Robert Wayne B.S. 1929, United States Naval Academy	Va.
DeJong, Betty	D.C.	Denham, Richard Marvin	Ky.
DeKeyser, Henry Leo A.B. 1937, A.M. 1942, New Jersey State Teachers College, Upper Montclair	Md.	Denham, Sara Belle	Pa.
DeKornfeld, Thomas John B.S. 1948, The George Washington University	Pa.	Denman, Thomas Boinin	Colo.
DeLabar, John Henry A.B. 1948, The George Washington University	Tex.	Denning, Barbara Jeanne A.B. 1949, Stanford University	Ohio
De La Garza, Vincent Monico	D.C.	Denning, John Patrick	D.C.
Delahanty, Thomas Washington	Va.	Dennis, John Gardner	Md.
Delaney, Henry Leon	La.	Dennis, Louis Rothan, Jr.	D.C.
Delaney, John Aloysius	Mich.	Dennis, Keyburn Hicks, Jr.	Calif.
Delano, Willard Alfred B.S. in Ed. 1940, Wilson Teachers College	Md.	Dennis, Virginia Loretta A.B. 1935, University of California A.M. 1947, New York University	Va.
M.Ed. 1941, University of Buffalo	D.C.	Denno, Bryce Frederic B.S. 1940, United States Military Academy	Va.
Delasos, Lewis A.B. 1948, The George Washington University	D.C.	A.M. 1949, University of Missouri	D.C.
Delean, John Felecian	D.C.	Denny, Judith L.	Va.
DeLeon, Olaf Grane	D.C.	Denny, Paul Morrison	D.C.
Delevaux, Maryse Helen	D.C.	Denny, Robert Evans B.S. 1909, Davidson College	D.C.
Delgado, Angel Luis	D.C.	deNovens, Marie A.B. 1937, Hunter College	D.C.
DelGrosso, Peter Albert	D.C.	Dent, Eileen Winifred	Pa.
D'Elia, Peter Alfred	N.J.	Dent, Jessie Elizabeth B.S. 1942, Skidmore College	D.C.
Deliman, Robert Michael B.S. 1949, University of Pittsburgh	Pa.	Dent, William Theophilus	Nev.
Deliyannis, Penelope	D.C.	Denton, Ralph Lloyd	D.C.
Delk, Frank S.	Md.	Dentz, Robert Joseph	N.Y.
Dell, Albert Hampson	Va.	DePaoli, Dora Marie	Md.
Dell, Vernon Clifton	Va.	dePaul, Joseph Alfred	D.C.
Della Valle, Alexander Albert	D.C.	dePianelli, Felicia Worthington	Pa.
Dellinger, Martha Bruce	D.C.	D'Epiro, Albert Lincoln	W.Va.
Dellinger, Martha Virginia	D.C.	DePond, Frank James A.B. 1946, West Virginia University	Pa.
Del Monte, Gloria Virginia	D.C.	Deppe, William Lee	D.C.
Delong James C. A.B. 1949, Michigan State College	D.C.	dePutron, William Bentley	Conn.
de los Rios, Lolita	D.C.	DeRagon, John Rudolphe	Ohio
Delp, Richard Lee	Md.	DeRemer, Bernard Ray	D.C.
Del Priore, Francis Rocco A.B. 1941, New York University	Md.	deRham, Anne Marie	D.C.
Del Russo, Alessandra Luini Litt. Dr. 1939, Milan State University, Italy	Md.	Derkey, Lee Perry	Va.
Jurisp. Dr. 1943, Pavia State Uni- versity, Italy	Md.	DeRoco, Vernon James	Ill.
Del Russo, Carl Richard	Md.	DeRoin, Gene A.B. 1949, Cornell University	Mass.
Delsing, Lucy Mary	D.C.	DeRosa, Edward Francis A.B. 1947, The George Washington University	



Students Registered

421

DeRosa, Felix Michael	N.Y.	DeWitt, Maynard Browning	D.C.
A.B. 1941, Cornell University		DeWitt, William Bradley	Md.
LL.B. 1943, Fordham University		A.B. 1940, Howard College	
Derrick, Duane Greenwood	Utah	Dewoody, Harry Edward	D.C.
A.B. 1948, LL.B. 1948, The George Washington University		Diamant, Lila Ruth	D.C.
Derrickson, Harold Lee	Md.	Diamond, Jack Kenneth	D.C.
Derry, William Gerald	W.Va.	Diamond, Joyce	D.C.
DerTatevasion, Samuel	Va.	Diamond, Lois W.	D.C.
Deschaine, Bernard Richard	D.C.	Diamond, Melvin Harry	D.C.
DeScheff, Charles Francis	Md.	Diamond, William Thomas, Jr.	Tenn.
Desha, John Rollin II	Va.	A.B. 1941, Union University	
Desjardin, William Paul	D.C.	LL.B. 1948, University of Virginia	
Desjarlais, Henry Samuel	Mass.	Diavatis, Nicholas Damos	D.C.
Deskin, Elaine	D.C.	Diaz, Adolfo Solorzano	D.C.
A.B. 1947, The George Washington University		Diaz, Norman F.	D.C.
DeSouza, Pamela Constance	Va.	Dibble, David Eugene	D.C.
Dessez, Lester	D.C.	Dibble, Duane William	Md.
Dessez, Sally Chew	D.C.	DiBenedetto, Anthony Domenico	N.Y.
A.B. 1948, The George Washington University		B.S. 1943, Villanova College	
DeStefano, Angela Margaret	D.C.	DiBlasi, Clarence	D.C.
Detling, Harold Clarence	Calif.	Dibner, Richard Eugene	N.Y.
Detmer, Edwin Charles	Md.	B.M.E. 1943, College of the City of New York	
Detorie, George William	Va.	Dibrell, Dana Arrington	Va.
B.S.S. 1948, Georgetown University		A.B. 1949, Radford College	
Detrie, Evelyn Louise	Wis.	DiCaprio, Jennie Grace	N.J.
Detweiler, Mark George	Pa.	Dichter, Jack C.	N.J.
Detwiler, Charles Robert	D.C.	Dick, Arthur Freeman	Va.
Detwiler, Harry Grubb	Pa.	Dick, Charles Herbert	D.C.
B.S. 1936, Westchester State Teachers College		A.B. 1950, University of Maryland	
DeUngria, Jose Santiago	Philippines	Dick, Joan Cotton	N.Y.
Deutrich, Bernice Marie	D.C.	Dickens, Fred William, Jr.	Minn.
Deutsch, Joseph	D.C.	A.B. 1949, University of Minnesota	
A.B. 1947, Brooklyn College		Dickens, Joy Alice	D.C.
B.S. 1948, Pennsylvania State College		A.M. 1938, University of Wisconsin	
Deutsch, Norman	D.C.	Dickens, Nancy Marie	Va.
B.Ch.E. 1944, College of the City of New York		Dickens, Thomas Nolan	Md.
M.Ch.E. 1948, New York University		Dickerson, Benjamin Franklin	Va.
Devan, Christopher Bartram	D.C.	Dickerson, Mary Lou	N.C.
Devan, Thomas Arthur	D.C.	Dickey, Pauline	Wash.
A.B. 1948, The George Washington University		Dickinson, Alexander Branch	Va.
DeVaughn, Robert Wilson	Ga.	Dickinson, Helen Douglas	Va.
DeVay, Robert Brown	Ohio	Dickinson, Nancy Ruth	Va.
Devereux, John Francis	N.Y.	A.B. in Ed. 1945, Mary Washington College	
A.B. 1942, Harvard University	N.Y.	Dickson, Thomas Stuart	Va.
Deverman, George	Ill.	Dickmeyer, John T.	Va.
Devers, Evelyn G.	D.C.	A.B. 1949, University of Massachusetts	
A.B. 1939, The George Washington University		Dicks, Judson Ross	N.C.
DeVico, Luigi		A.B. 1948, A.M. 1949, University of North Carolina	
Devin, Charles, Jr.	N.Y.	Dickson, James Meek	Md.
Devine, Isabel Josephine	D.C.	Dickson, James Newton, Jr.	Va.
Devine, John Gilbert	Md.	Dickson, Robert Carl, Jr.	D.C.
B.S. 1949, Susquehanna University	Pa.	Dickson, William Francis	Va.
Devitt, William Aloysius, Jr.	N.Y.	Didlake, Betty Gore	Va.
Devlin, Harold Michael, Jr.	Va.	DiDonato, Mildred C.	D.C.
Devlin, Paul Andrew	D.C.	Ph.B. 1948, Marquette University	
Dew, Jackson Leonard	D.C.	Diehm, Ira Cortland	Pa.
Dewberry, Raymond Allen	D.C.	B.S. 1949, Franklin and Marshall College	
Dewberry, Sidney Oliver	D.C.	Dieker, Georgia Selph	Va.
DeWeese, William Robert	D.C.	Diemer, Fred Joseph	N.Y.
Dewey, Richard Arthur	Ohio	Diemer, Robert Arthur	D.C.
Dewing, June Carol	Peru	Dierden-Crockett, Jeffery Rosher	England
DeWitt, James Corwin	Va.	Dierks, John Henry	Pa.
B.S. 1943, Mount Union College	Va.	Dieter, Carlisle Lyon	Va.
DeWitt, Kurt	D.C.	Dieter, Rose Ward	Va.
A.B. 1941, Reed College		Dieterich, William Hyde	S.C.
		B.S. 1937, D.V.M. 1939, Kansas State College	
		Dietrich, Alice Schneider	N.Y.
		Dietrich, Diane Landre	Va.



Dietrich, E. Donald	Md.	Dixon, Nancy Elma	Va.
Dietrich, Jack Mitchell	Kans.	B.S. 1940, Madison College	N.Y.
Dietterle, Mary Elizabeth	Va.	Dixon, Robert Galloway	
Dietz, Albert Edward	D.C.	A.B. 1943, Ph.D. 1947, Syracuse University	
Dietz, Glenn Allen	Fla.	Dixon, Thomas Wilson	Md.
Dietz, Ronald Lee	Ill.	LL.B. 1949, The George Washington University	
Dietz, Stanley Martin	N.Y.	Dixon, William Joseph	Md.
Diffenderfer, Anne Lenoir	D.C.	A.B. 1947, University of Utah	
Diffley, John Edward	D.C.	Doane, John Emil	Md.
M.B.A. 1929, University of Michigan		B.E.E. 1936, The George Washington University	
DiFilippo, Marion Murphy	D.C.	Dobak, Philip Louis	D.C.
DiGangi, James John	Conn.	Dobbis, Barbara	N.Y.
B.S. 1934, College of William and Mary		Dobkin, Abraham	N.Y.
DiGiulian, Anna Maria S.	D.C.	A.B. 1948, The George Washington University	
B.S. 1939, Wilson Teachers College	Va.	Dobres, Jeanne Louise	Md.
Diliberto, Joseph Charles		A.B. 1949, The George Washington University	
B.M.E. 1936, Stevens Institute of Technology		Dobrowski, Helen Little	Va.
Dilks, Charles Gordon	Md.	A.B. 1943, University of North Carolina	
Dillard, Terry Boyd	Tex.	Dobson, Richard Hal	Va.
Dillehay, Thomas Jefferson, Jr.	Tex.	B.S. 1949, Kansas State College	
B.B.A. 1927, A.M. 1929, Baylor University		Dodd, Harold Gregory	D.C.
Dilley, Donald LeRoy	Colo.	Dodds, Alan Hawkins	
Dilley, Luther Luke LaSalle	Wash.	B.S. 1949, Georgetown University	D.C.
Dilli, Nancy Tucker	D.C.	Dodds, Chauncey Yandell	Pa.
Dillon, Charles Richard	Md.	Dodds, Madeline Mahuran	
Dillon, Edward Robinson	D.C.	A.B. 1944, Pennsylvania State College	D.C.
Dillon, Joe Clyde	Va.	Dodek, Trenice Ann	
Dillon, Robert Sherwood	D.C.	A.B. 1948, University of Michigan	Md.
Dillon, Robert Warren	Md.	Dodge, John Parker	
Dillon, Thomas Power		A.B. 1940, Johns Hopkins University	D.C.
B.S. in B.A. 1939, University of Pittsburgh		Dodge, Luisa Burns	Va.
Dills, Charles Everard	N.D.	A.B. 1942, Smith College	Va.
B.S. 1949, North Dakota State College		Dodge, William Bannard	Va.
DiMaggio, Anthony Joseph	N.J.	Dodson, Elba Aileen	
B.S. 1950, University of Maryland		Dodson, Hugh Howie	Mass.
DiMaio, Marie Ann	R.I.	Doe, Norman Ross	
DiMaria, Sebastiano	Pa.	A.B. 1948, Marshall College	Ill.
DiMartino, Horace Robert	Mass.	Doernenburg, Helen Johanna Hulda	Minn.
Dimmette, Claude Chester, Jr.	D.C.	Doerr, Wallace F.	
DiMona, Joseph Michael	N.J.	A.B. 1942, A.M. 1947, Yale University	Va.
A.B. 1947, Duke University		Dofflemeyer, Clyde Evans	W.Va.
Dinges, Cindy	Va.	Doggett, Hilda Lee	
Dingler, Richard William	Ill.	A.B. 1943, Shepherd College	Va.
Dinkins, Edward M.	D.C.	Dohner, John Ellis	Mass.
Dinning, Mary Elizabeth	Ky.	Doire, Henri Severe	Va.
Dinsmore, Ruth Ann	Mass.	Dolan, Virginia Eve	Alaska
B.S. 1940, Massachusetts State Teachers College, Worcester		Dolan, William Augustine, Jr.	
Dion, Marie Berthe	D.C.	B.S. 1926, United States Naval Academy	N.Y.
Dion, Robert Lester	D.C.	Dolecki, Joseph Francis	
Diorio, David	D.C.	A.B. 1946, University of Alabama	D.C.
DiPasquale, Theresa Aurora	D.C.	Dolecki, Yolanda Toth	D.C.
D'Ippolito, Mario	D.C.	Dollar, Henry	
Diretadian, Helen	N.Y.	B.C.E. 1937, College of the City of New York	D.C.
Dischinger, Frederick William, Jr.	N.Y.	Dolnick, Ethel Helen	
Dishaw, Ira Hugh	N.Y.	B.S. 1945, A.M. 1947, The George Washington University	Va.
B.S. 1940, A.M. 1941, Syracuse University		Doman, Lois Jenkins	
A.M. 1947, Harvard University		A.B. 1933, College of William and Mary	Wis.
Dishun, George Melvin	D.C.	Domann, William Arthur	Mass.
Disque, Allen William	Md.	B.S. 1948, University of Wisconsin	
Divine, William Beach	Va.	Domingue, Anita Therese	
Dix, Edgar LaRue	D.C.	A.B. 1948, Rivier College	D.C.
Dix, Francis	Md.	Donadei, Roberto Italo	D.C.
Dixon, Cloyce Irven, Jr.	D.C.	Donahay, Justin James	
Dixon, Edgar Allen	D.C.		
Dixon, George Carlton	Tex.		
Dixon, John Wainwright			



Donahue, Julia Lillian	Maine	Dorset, Francis Alexander, Jr.	Va.
Donald, Mary Eleanor	D.C.	Dorsey, Guy Houston	D.C.
Donaldson, Allyn Capron, Jr.	D.C.	Dort, Wallace Emerson	Fla.
Donaldson, Frances Flaacke	D.C.	Dossi, Serenus W.	D.C.
A.B. 1925, The George Washington University		A.B. 1942, Indiana State Teachers College, Pa.	
Donaldson, Joan Marie	D.C.	Doswell, Gelon Hann	La.
Donaldson, John Charles	Fla.	Dotson, Daniel Keating	Va.
Donaldson, John Eldridge, Jr.	D.C.	Dotson, Maryanna Elizabeth	D.C.
A.B. 1949, The George Washington University		A.B. 1948, The George Washington University	
Donaldson, Roy Eugene	W.Va.	Doub, Dorothy Loucille	N.C.
Donelson, Kenneth William	Nebr.	A.B. 1941, Brenau College	
Donics, William	Pa.	Doucarelis, Alexandria	N.Y.
Donlon, Kenneth Lee	Mass.	A.B. 1943, Hunter College	
Donnelly, Albert Lee, Jr.	Conn.	Dougherty, Frank Robert	Md.
A.B. 1947, Yale University		A.B. 1946, The George Washington University	
Donnelly, Henry Joseph, Jr.	Va.	Dougherty, Harold Arthur	D.C.
B.S. 1928, University of Pennsylvania		Dougherty, Harold Joseph	N.Y.
Donnelly, Orville Wright	Md.	Dougherty, Joseph Patrick	D.C.
A.B. 1943, Swarthmore College		Dougherty, Louis Leighton	Pa.
Donnelly, Owen James	D.C.	Dougherty, Thomas James	N.D.
Donnelly, Richard Charles	D.C.	Dougherty, Virginia Baxter	Va.
Donnelly, William Francis	D.C.	A.B. 1935, Texas State College for Women	
Donoghue, William James, Jr.	Md.	Dougherty, Wayne J.	Iowa
Donohue, James Francis	Md.	A.B. 1941, University of Iowa	
Donohue, Harold	Md.	Doughton, Rosemond Marie	D.C.
Donohue, John Andrew	Md.	Doughty, James Irving	D.C.
Donovan, Catherine Angela	D.C.	Douglas, James Andrew	D.C.
B.S. 1947, California State Teachers College, Pa.		Douglas, James Homer	D.C.
Donovan, Rita Marie	Pa.	Douglas, James Shepard	D.C.
B.S. 1942, California State Teachers College, Pa.		B.S. 1944, United States Military Academy	
Dooley, James Joseph	D.C.	A.M. 1949, University of Missouri	
Dooley, Joseph William	Va.	Douglas, Margaretta Vantuyl	D.C.
Dooley, Rose-Marie	Canada	A.B. 1945, A.M. 1948, University of North Carolina	
Dooley, Walter Francis, Jr.	D.C.	Douglass, Arthur Allen, Jr.	Va.
Doolittle, Glenn Alden	Tex.	Douglass, John Robert	Va.
B.S. 1939, Southwest Texas State Teachers College		Douglass, Martha Anne	Md.
M.B.A. 1949, University of Texas		Douglass, Paul Manuel, Jr.	Va.
Doolittle, Leroy Clark	Md.	Douma, Allene Vartia	D.C.
A.B. 1949, American University		Doutrich, Jewel Elizabeth	D.C.
Doolittle, Thomas Butler, Jr.	Md.	B.S. 1940, Oklahoma College for Women	
A.B. 1949, Western Maryland College		Dove, Charles Vincent	D.C.
Doonan, Virginia Mary	D.C.	Dover, Edward Adolph	Mich.
Doong, Henry	N.J.	B.S. 1940, Michigan State Normal College	
Dopkin, Sylvia	N.Y.	Dow, Helen May	D.C.
Doran, Stephen Mark	Mich.	Dow, Howard Fremont	Va.
Dorasavage, William Joseph	Pa.	Dow, Mary	Mass.
LL.B. 1949, Catholic University of America		Dow, Tsung I.	China
Dorf, Paul Aaron		A.B. 1940, National Central University	
Dorfman, David	Md.	Dowd, George Gordon	Wash.
Dorfman, Hilliard	Md.	Dowd, William H.	Va.
Dorje, William Matthew	Pa.	B.S. 1948, Boston College	
Doriety, James Douglas	N.Y.	Dowell, Arthur Edward III	D.C.
B.S. 1949, Villanova College		B.S. in E.E. 1943, Princeton University	
Dorman, Walter William	N.J.	Dowell, Earl Simeon	Ill.
Dorosh, Edward Peter	Va.	B.S. 1947, University of Illinois	
Dorr, Bernard Francis	N.Y.	Dowling, Richard Emmett	N.Y.
Dorr, Bradford	D.C.	Dowling, Walter James	Va.
A.B. 1902, Williams College		Downer, Charles Thomas	Md.
Dorr, Lorita	D.C.	B.S. 1947, Bowling Green College	
Dorr, Lucile Bertram	D.C.	Downes, John Pershing	N.Y.
Dorre, Lawrence	Tex.	Downey, Alma G.	Nebr.
A.B. 1948, North Texas State College		Downey, Dorothy Adelaide	D.C.
Dorrell, Russell Ellsworth	D.C.		
B.S. 1934, Carnegie Institute of Technology			
Dorris, Morris Bernard	D.C.		
Dorsay, Jeanette	Va.		



Downey, Francis Xavier	Va.	Driscoll, Joseph Patrick	Mass.
B.E.E. 1949, Catholic University of America		A.B. 1941, LL.B. 1943, Harvard University	D.C.
Downey, John Joseph	Mass.	Driscoll, Michael Joseph	Pa.
Downey, Maureen Elizabeth	D.C.	Driscoll, Robert Edward	Va.
Downing, Joseph Guthrie	Va.	Driver, William Joseph	
Downing, Leslie Burgess	D.C.	B.B.A. 1941, Niagara University	N.Y.
B.S. 1920, United States Military Academy		Droll, Henry Andrew	Va.
Downing, Matthew Patrick	Va.	Dronney, Paul Vincent	Va.
Downs, Harold Alfred	Va.	Drucknmiller, Donald James	D.C.
Downs, Noland McKenzie	Va.	Drumm, Anna Mary	
Downs, Robert Jack	Okla.	B.S. 1946, Mansfield State Teachers College, Pa.	Va.
Downton, James Bertram	Md.	Drummond, Frank Brown	D.C.
A.B. 1939, University of Buffalo		Drummond, Thomas Darrell	Ohio
A.M. 1941, Duke University		Druse, Katharine	
Doyka, Donna Gray	D.C.	A.B. 1917, Iowa Wesleyan College	
Doyle, Ann Catherine	Colo.	A.M. 1928, Columbia University	D.C.
Doyle, Bert Aloysius, Jr.	R.I.	Drysdale, Charise Carlton	Colo.
Doyle, John Benedict, Jr.	Calif.	Drysdale, Raymond Rufus	Ohio
A.B. 1948, University of California at Los Angeles		Drysdale, Robert Morrison, Jr.	
Doyle, Mahlon Eugene	D.C.	A.B. 1936, Harvard University	
A.B. 1949, The George Washington University		LL.B. 1949, Cleveland-Marshall Law School	D.C.
Doyle, Peter Joseph	D.C.	Dubendorf, Jeanne Miller	D.C.
Doyle, T. Roy	Pa.	Dubester, Dorothy Ennis	
Doyle, Vincent Joseph	D.C.	A.B. 1941, Brooklyn College	N.J.
Doyle, William Joseph	Md.	Dubnik, Celia S.	D.C.
Drag, Theodore Frank	D.C.	DuBose, Jack Boyd	D.C.
Dragoo, Roland Paul	D.C.	Dubroff, Seymour	
B.S. 1941, University of Idaho		A.B. 1948, The George Washington University	Pa.
B.S. in Chem. 1949, The George Washington University		Ducar, Anna Deane	
Draine, Dorothy Ellen	N.C.	B.S. 1942, California State Teachers College, Pa.	Mass.
Drake, Mary Lou	Iowa	Duchaine, Joseph Alfred Victor	D.C.
A.B. 1934, University of Iowa		Duchesne, Edmund F.	D.C.
Drake, Nadine Grace	New Zealand	Duchesne, Emily Mary	Va.
F.L.C.M. 1947, London College of Music		Duckworth, Alan Clark	Pa.
Drake, Robert Coolidge	Minn.	Duda, John	D.C.
Drape, Michael John	Ohio	Duda, Paul Joe	Va.
Draper, Elizabeth Kohl	D.C.	Dudley, Albert Frederick	Va.
A.B. 1924, A.M. 1933, The George Washington University		Dudley, George Hayden	Md.
Draper, William Alfred	D.C.	Dudley, Joseph Rencher	
B.S. 1935, Wilson Teachers College		Dudley, Paul Lee	
Drapkin, Leon Isadore	Md.	B.S. 1926, United States Naval Academy	D.C.
Dratwick, Christine H.	Ill.	Dudzik, Sylvester Peter	D.C.
Drayer, Clarence Prowell	D.C.	Duerksen, Eleanor	
Dredge, Talbot William	D.C.	A.B. 1946, Bethel College	D.C.
Dreifus, Jordan Albert	D.C.	Duerksen, Sylvia	Tenn.
A.B. 1949, Harvard University		Duff, David Dryden	
Dreka, Mary Catherine	D.C.	A.B. 1948, The George Washington University	Pa.
Dreos, George Calvin	D.C.	Duff, Marie	
B.S. 1945, University of Alabama		A.B. 1945, The George Washington University	Md.
LL.B. 1948, The George Washington University		Duffy, Charles Creighton	
Dreppard, Hazel	Kans.	B.S. 1949, University of Nevada	Md.
A.B. 1935, Drury College		Duffy, John Edward	Pa.
Dressel, Robert James	D.C.	Duffy, Marilyn Margaret	N.Y.
Dressler, Dorothy Anne	Pa.	Duffy, Patricia Ann	Pa.
Dries, Edward Thomas	N.Y.	Duffy, Rose Mary	
Drimmer, Miriam Weinberg	N.Y.	A.B. 1934, Misericordia College	N.Y.
Drimmer, Saul E.	N.Y.	Duffy, William LeClair	D.C.
B.S. 1940, The George Washington University		Dufresne, Joseph Paul	
Drinnan, John Thomson	Va.	B.S. 1943, LL.B. 1948, Georgetown University	Ill.
Drischler, John Francis Carl	Va.	Duft, Donald Matthew	
Driscoll, James Raymond	D.C.	B.S. in E.E. 1949, Illinois Institute of Technology	Va.
Driscoll, Joan	Conn.	Dugan, Albert Irvin, Jr.	Va.
Driscoll, John Joseph	D.C.	Dugan, Beverly Beam	



Dugan, Michael Hugh	W.Va.	Dunn, Howard	N.Y.
Dugan, Thomas Joseph	Md.	A.B. 1936, College of the City of New York	
B.S. 1933, Catholic University of America		A.M. 1940, Columbia University	
Dugdale, Donna Elizabeth	D.C.	Dunn, Mildred Eddy	D.C.
A.B. 1949, The George Washington University		Dunn, Theodore Franklin	N.Y.
Duggan, John Francis	D.C.	A.B. 1948, The George Washington University	
Duggins, Virginia A.	Va.	Dunn, Walter Lee	Va.
A.B. 1942, Sweet Briar College		B.S. 1949, Montana State College	
DuGoff, Albert Morris	D.C.	Dunning, Alice Langley	D.C.
Duhonich, Anne	Pa.	A.B. 1943, Queens College	
Dula, Thomas Maurice	Va.	A.M. 1944, Clark University	
Dula, Arthur McKee	Va.	Dunning, Earle Bogart	Calif.
Dula, Lillian Lorraine	D.C.	Dunning, William Charles	D.C.
Dulaski, Benedict Joseph	Mass.	Dunnington, Elgin Adams, Jr.	Md.
Dulayeris, Anastasia	Wis.	Dunphy, Robert Giles	R.I.
Dulcie, Jerome Joseph	N.J.	Dunstan, Chadwick	Hawaii
Dulin, Dorothy Virginia	D.C.	Duplinsky, Edward Nicholas	Conn.
Dulin, Garretson	Calif.	A.B. 1949, The George Washington University	
B.S. 1948, University of California at Los Angeles		Dupre, Forrest Francis	R.I.
Dulkie, Joseph Augustine	Mass.	Dupuy, Harold James	La.
Dum, Frank Bryan	Va.	Durant, Jack Wybrant II	Va.
Dumaine, Gabriel Romain	Va.	Duras, Barbara Elizabeth	Va.
A.B. 1948, The George Washington University		Durbin, Sol	Va.
Dunavent, Roy Joseph	D.C.	B.S. in M.E. 1940, Oregon State College	
Dunaway, Helen Elizabeth	Iowa	Durham, Mary Sherrill	Ky.
Dunbar, John Paul	D.C.	Durkat, Doris Jean	Mich.
Dunbar, William Beal	D.C.	Durkin, William James	D.C.
Duncan, Carolyn Agnes	Pa.	Durman, Elizabeth Claire	Md.
Duncan, Donald George	D.C.	Durnbaugh, Evelyn Grace	D.C.
Duncan, Donald Richard	D.C.	A.B. 1933, The George Washington University	
A.B. 1938, Ohio State University		Durr, Lawrence Ervin	Md.
Duncan, Harold Owen	Md.	D'urso, Alfred Mario	Mass.
B.C.S. 1941, University of Georgia		Dusenbury, Richard Green	S.C.
Duncan, James Thomas	Ga.	A.B. 1946, University of South Carolina	
Duncan, John David	W.Va.	Duska, John George	N.J.
Duncan, John Kenneth	Va.	Dusseault, Henry A.	N.H.
A.B. 1947, The George Washington University		A.B. 1949, The George Washington University	
Duncan, John Ogilvy	Va.	Dutcher, Winifred C.	D.C.
Duncan, Paul, Jr.	Md.	Duthie, Charles Lockwood	Va.
Duncan, Robert L.	Ind.	Duvall, Mabel Belle	Va.
A.B. 1935, DePauw University		A.B. 1944, The George Washington University	
M.S. 1940, Butler University		Duvall, Russell Byng	Md.
Duncan, Samuel Alex	Va.	Dwass, Meyer	S.C.
Duncan, William Edward	Va.	A.B. 1948, The George Washington University	
Dunfee, George Thomas	N.J.	A.M. 1949, Columbia University	
Dunfee, Bernadine Langdon	Ohio	Dwass, Shirley Labowitz	Pa.
B.S. in Ed. 1939, Wilmington College		Dworshak, Calvin George	Idaho
Dunkle, Ann	Va.	Dworsky, Dena Leigh	Md.
Dunlap, Frederick Leroy	Va.	Dwyer, Helen Marguerite	Mass.
Dunlap, Maxfield Hurlbut	Calif.	Dwyer, Jean Ferguson	Mass.
Dunlap, Ruth Elaine	D.C.	A.B. 1948, The George Washington University	
Dunn, Agnes Laura	D.C.	Dwyer, Joseph Joseph	D.C.
Dunn, Alice	S.C.	A.B. 1947, The George Washington University	
Dunn, Arnold	N.Y.	Dwyer, Louis Eugene	Va.
Dunn, Bertha Wakefield	Va.	B.S. 1948, American University	
A.B. 1941, Howard College		Dwyer, Maude Rundle	N.Y.
A.B. 1937, Immaculate Heart College	D.C.	Dwyer, Vincent William	N.Y.
Dunn, Constance June	D.C.	Dyck, William Donald	Kans.
Dunn, Dorothy	Nebr.	Dye, Mary Charleen	Va.
A.B. 1945, University of Nebraska		Dyer, James Arthur	Va.
Dunn, Elizabeth Pinkerton	D.C.	Dyer, Marcia Clair	D.C.
Dunn, Eugene Francis	Va.	Dyer, Robert Francis	D.C.
Dunn, Florence Wright	Md.		
Dunn, Frances Esther	Calif.		
Dunn, George Martin	D.C.		
A.B. 1949, The George Washington University			



Dysart, Thomas Gilmore	Md.	Eckard, Joseph Daniel	N.C.
B.S. in M.E. 1943, University of Missouri		Ecker, Naomi Esther	D.C.
Dysland, Robert Carroll	Md.	A.B. 1948, University of Maryland	Va.
Dziepak, Anthony Joseph	N.J.	Eckerle, Norma Hallman	Va.
Dzunda, Stephen Duri	Ind.	Eckerle, Richard Lawrence	D.C.
		Eckert, Raul Miguel	N.Y.
		Ecklund, Everett Theodore	D.C.
		Economon, Foteny	D.C.
		Economon, Straty Harry	D.C.
		Economopoulos, Helen Mary	N.Y.
		Edelman, Leonard	D.C.
		Edelschein, Theodore Edward	Ohio
		Edelson, Jerry	
		A.B. 1949, University of Cincinnati	Md.
		Eden, Sara Baker	
		A.B. 1943, University of Oklahoma	Md.
		Eden, Werth	Md.
		Eden, William Earl	N.Y.
		Edenbaum, Robert Lawrence	Va.
		Edgar, Jean Nelson	D.C.
		Edgerton, Ann	Pa.
		Edgerton, Edward Joseph	D.C.
		Edler, Karl Frederick	Maine
		Edminster, Noah Israel, Jr.	
		A.B. 1941, Bates College	Va.
		Edmonson, Frances Everhart	Fla.
		Edmonson, Francis Livingston	
		Ph.B. 1924, Emory University	Md.
		Edmonson, Ruby Mae	Va.
		Edmondson, Samuel Wedding, Jr.	
		A.B. 1947, Emory and Henry College	Md.
		Edmondson, Violet Frances	Va.
		Edmondston, William Carbery	Va.
		Edmunds, James Bradt, Jr.	
		A.B. 1941, The George Washington University	Ill.
		Edwall, Warren Emerson	Md.
		Edwards, Alletta Prentiss	D.C.
		Edwards, Elizabeth	Va.
		Edwards, Garth Williams	
		B.S. 1939, University of Illinois	Va.
		Edwards, Henry William	
		B.Ed. 1937, Montana State Normal College	Fla.
		Edwards, James Edwin	
		A.B. 1935, LL.B. 1946, The George Washington University	D.C.
		Edwards, John Fanning, Jr.	Kans.
		Edwards, Marion William	Md.
		Edwards, Rosaline Mary	
		B.S. in Ed. 1934, A.M. 1935, Fordham University	Okla.
		Edwards, Rostand Hurbit	D.C.
		Edwards, Walter Robert	
		A.B. 1941, The George Washington University	D.C.
		Edwin, Gabriel	
		B.S. 1949, The George Washington University	Ohio
		Efron, Reuben	Oreg.
		Efteland, Robert Grant	
		A.B. 1941, Stanford University	N.J.
		Egan, Anna Virginia	
		A.B. 1948, The George Washington University	D.C.
		Egan, Donald Joseph	D.C.
		Egan, Laurence Donohue	Md.
		Egbert John Paul	Md.
		Egger, Roscoe Lynn, Jr.	
		B.S. 1942, Indiana University	Va.
		Eggleston, Paul Cornwell	D.C.
		Egloff, Edward	

## E

Eads, Harold James	Md.		
Eagan, Frances Ellen	D.C.		
Eagan, Thomas Leggett	Md.		
Eaholtz, Galen Martin	Pa.		
Eaker, Herbert Lowell	Va.		
Eanet, Charles Harold	D.C.		
Eanet, Morton Philip	D.C.		
A.B. 1947, Yale University			
Eardensohn, Clifford John	N.J.		
Earich, Douglas Ray	Pa.		
A.B. 1949, Lebanon Valley College			
Earl, Ira Roy	Nev.		
B.S. 1948, Brigham Young University			
Earl, Owen Ken	Idaho		
A.B. 1948, Brigham Young University			
Earle, Elizabeth Rebecca	D.C.		
Earle, John Howard	D.C.		
B.S. 1943, Pennsylvania State College			
Earle, William Kehr	Pa.		
B.S. 1940, United States Coast Guard Academy			
Earley, William Thomas	D.C.		
Earls, Marilyn	Ill.		
Early, Edmund Ayres	D.C.		
Early, Edward Shea	Mass.		
A.B. 1948, Bowdoin College			
Early, Robert Elliott	Va.		
Early, William Eugene	D.C.		
Early, William Norman	D.C.		
Earman, Fay	Va.		
Earman, John William, Jr.	D.C.		
Earman, Teunis Ransom	Va.		
Earnest, Elmer Dean	Pa.		
Earnheart, Frank Jones	Md.		
A.B. 1947, University of North Carolina			
East, William Francis	Va.		
A.B. 1939, Western Maryland College			
Easter, James Franklin, Jr.	D.C.		
Eastin, Roy B.	Ky.		
A.B. 1942, A.M. 1945, The George Washington University			
Eastman, Paul Wilberforce, Jr.	D.C.		
B.S. in C.E. 1948, University of Missouri			
Eastman, Samuel Thomas	Va.		
Easton, Carl Wilbur	Pa.		
Eaton, Stanley Warren	Va.		
Ebel, Joyce Marie	D.C.		
Eberdt, Jess Samuel	Ga.		
A.B. 1931, University of Alabama			
Eberhart, Francis Claude	Va.		
A.B. 1940, University of Dubuque			
LL.B. 1948, University of Florida			
Eberly, Joyce Eileen	Nebr.		
Ebersole, William Perkins	Ala.		
Ebert, Eugene	D.C.		
Ebert, William Joseph	D.C.		
Eby, Amy Bowen	Md.		
A.B. 1939, Shepherd State Teachers College			
Eby, Phillipa Randolph	Md.		
Eccleston, Harold Norris, Jr.	Md.		
Echegaray, Miguel de	D.C.		



Egly, Paul Wesley A.B. 1946, University of California at Los Angeles	Calif.	Elko, George Henry B.S. in Ed. 1941, Indiana State Teachers College, Pa.	D.C.
Ehlers, Lois Ann	D.C.	Elko, Helen	Pa.
Ehrhard, Joseph Julius	D.C.	Ellenberger, Agnes Elisabeth	D.C.
Ehrlich, Bernard Herbert A.B. 1946, LL.B. 1949, The George Washington University	D.C.	Ellenberger, Kenneth Rehl LL.B. 1948, B.S. 1949, Ohio State University	Ohio
Ehrmantraut, Wilfred Russell B.S. 1948, University of Maryland	Md.	Ellenburg, James Russell	Ky.
Eicher, Grace Edith	Va.	Ellenwood, Robert Carrington B.S. in Agr. 1942, Ohio University	Va.
Eicher, William Russell	Pa.	Eller, Robert Whittington	Md.
Eichlin, Edward Charles	Va.	Elliott, Edwin Walter	Pa.
Eicke, Woodward G., Jr.	D.C.	Elliott, Frank Carson A.B. 1949, The George Washington University	Pa.
Eilbert, Richard Lyle	D.C.	Elliott, Jerry Deon	D.C.
Eisenberg, David A.B. 1949, The George Washington University	N.J.	Elliott, Joseph Sire, Jr. A.B. 1940, Washington College	Md.
Eiler, Ernest Earl	Calif.	Elliott, Lois	Va.
Eiler, Marian Margaret	Md.	Elliott, Richard Alton	Va.
Eilers, James Paul	Md.	Elliott, Robert A.	D.C.
Eimer, Margaret Hermann	Va.	Elliott, Robert Stanley	Ill.
Einbinder, John Collum	Va.	Elliott, Stephen Lyons	Md.
Einfrank, Samuel	Wis.	Elliott, William Homer, Jr. A.B. 1940, Wesleyan College	N.J.
Einheber, Albert A.B. 1948, The George Washington University	Pa.	Ellis, Calvin Warren	Ark.
Eiring, Henry William B.S. 1949, Georgetown University	Md.	Ellis, Carl Edison	Md.
Eisenberg, Bernard Carl	D.C.	Ellis, Edward Kerge	Va.
Eisenburger, Dorothy Evelyn	D.C.	Ellis, Frances Howard	D.C.
Eisenhart, George Norman B.S. 1937, Georgia Institute of Technology	Ohio	Ellis, Henry Herbert	Va.
Eisler, Frederic Robert	N.Y.	Ellis, Homer Rudolph, Jr.	N.C.
Eisner, Edith Chelimer A.B. 1946, Duke University	N.J.	Ellis, James G., Jr.	N.Y.
A.M. 1947, Columbia University	D.C.	Ellis, John Reavis	Ga.
Eisner, Jerome	N.Y.	Ellis, Louise Mayo A.B. 1927, Arkansas College	Ark.
Eisner, Mark, Jr.	N.Y.	Ellis, Marguerite Alice	D.C.
Ekbero, Bernell Karin A.B. 1941, Lawrence College	N.Y.	Ellis, Marian Bissell	N.Y.
Ekendahl, Lillian Mabel	D.C.	Ellis, Nathan	N.Y.
Ekman, Donald Quintin	Pa.	B.C.S. 1948, Drake University	D.C.
Elam, Barbara Jean	D.C.	Ellis, Robert Arthur	Hawaii
Elam, James Abner	Va.	Ellis, Robert Kekumu A.B. 1949, Harvard University	
Elder, Helen Koch	Va.	Ellis, Roberta Anne	Md.
Elder, John Francis	D.C.	Ellis, Ruth Joy	D.C.
Eldredge, Robert Breene A.B. 1948, Duke University	Va.	Ellis, William Ace	Mo.
Eleftherios, Peter Apostolos A.B. 1948, Ohio State University	Vt.	Ellison, Charles Dewey, Jr.	Tenn.
Elf, Martin Arthur	Mass.	Ellison, Maxell	Tex.
Eliades, Homer Constantine A.B. 1949, University of Virginia	Pa.	Ellison, Oliver Thomas	Iowa
Elinson, Jack B.S. 1937, College of the City of New York	Va.	Ellison, Teddy Roosevelt	Ky.
A.M. 1946, The George Washington University	N.Y.	Ellison, Walton Darrell, Jr. B.S. 1949, University of Colorado	N.M.
Eliot, Arthur B. B.E.E. 1949, College of the City of New York	N.Y.	Ellman, Margaret Susanne	D.C.
Eliot, Theodore Lyman, Jr. A.B. 1948, Harvard University	Calif.	Ellowitz, George	Md.
El-Khoury, Fouad	D.C.	Ellsworth, Charles West, Jr. B.S. 1947, University of Maryland	Md.
Elkin, Anne	Ill.	Elly, Patricia A.B. 1949, Notre Dame College	Md.
Elkin, Benjamin A.B. 1949, The George Washington University	Ill.	Elman, Josef Katten	D.C.
Elkin, Evelyn	Ill.	Elmendorf, Richard Arthur	D.C.
		El-Modjadidi, Mohamed Shoueib A.B. 1945, First University of Cairo	D.C.
		Elmore, Cecil Franklin	D.C.
		Elmore, Willett	D.C.
		Elms, Betty Jane	Kans.
		Elrod, Mary Elma	D.C.
		Elstad, Victor Bernhard A.B. 1941, St. Olaf College	Va.
		Elstrand, John Grover A.B. 1950, Texas Christian University	D.C.
		Elward, Elizabeth Anne A.B. 1949, Trinity College	Md.
		Elwell, Patricia Evelyn	Maine



Elwell, Richard Brans	D.C.	Epstein, Jerome Harold	D.C.
Ely, George Franklin	Pa.	A.B. 1947, New York University	
Ely, Marvin Thomas	W.Va.	A.M. 1948, The George Washington University	Mass.
Ely, Robert Burroughs	Va.	Epstein, Marion	
A.B. 1920, Emory and Henry College		A.B. 1949, The George Washington University	Md.
LL.B. 1926, LL.M. 1948, The George Washington University		Epstein, Melvin Douglas	N.Y.
Embler, Ralph Edward	N.J.	Epstein, Milton	N.Y.
Embrey, Lemuel Jackson	Va.	A.B. 1948, New York University	N.Y.
A.B. 1937, LL.B. 1949, The George Washington University		Erenthal, Joseph	N.Y.
Embrey, Thomas Carl	D.C.	Ergas, Isaac	
Embry, Wallace McKenzie	D.C.	B.M.E. 1948, New York University	D.C.
Emch, George Frederick	D.C.	Erickson, Patricia Sparks	D.C.
B.S. 1948, Trinity College		Erickson, Robert Lyle	D.C.
Emerson, Charles William	Md.	Erickson, William Murphy	Cyprus
Emerson, Edyth Hildegard	Maine	Erman, Hassan Rifat	D.C.
Emerson, Geneva Wall	Md.	Ermlick, Donald Herman	Wash.
Emerson, George Alexander	D.C.	Erp, Majorie Jean	
A.B. 1942, University of New Mexico		A.B. 1942, Washington State College	D.C.
A.M. 1948, American University		Errera, Irven	Va.
Emerson, Harold Leonard	Md.	Ervin, Suzanne H.	D.C.
Emerson, Janet	Mass.	Erving, Madge Easton	D.C.
Emma, Paschal Joseph	N.Y.	Esban, Regina	D.C.
Emmert, Henry Theodore	Ill.	Esch, Albert Frederick	Puerto Rico
A.B. 1949, Augustana College		Escobar, Blanca Gloria	N.Y.
Emmet, Annmarie	Md.	Eskenazi, Solomon	N.D.
Emmett, William Joseph	D.C.	Eskes, James Norman	N.D.
Emory, Arthur Joseph	D.C.	Eskes, Juanita Elizabeth	D.C.
Encinas, Michel	N.M.	Eskite, Wilbur Henry	Va.
B.S. 1949, Georgetown University		Eslinger, Frank Robert	
Endres, Ewald Franz	N.C.	B.S. 1946, University of New Mexico	N.Y.
Enever, Grace	Calif.	Esmail, Joseph	
Engel, Edward	N.Y.	B.S. 1948, John B. Stetson University	D.C.
Engel, Estella Keplinger	D.C.	Esparolini, Luis Manuel	Wis.
A.B. 1943, West Virginia University		Espereth, Warren Joseph	Md.
Engel, Lea Kathryn	D.C.	Espey, Beatrice Mae Graham	
A.B. 1935, A.M. 1937, University of Maryland		A.B. 1928, University of Nebraska	D.C.
B.S. 1938, Wilson Teachers College		Espile, Felipe Angelus	D.C.
Engelman, Phyllis Claire	D.C.	Espinosa, Francisco Ramón	
Engelstein, Lena Schrager	D.C.	A.B. 1940, A.M. 1942, Stanford University	
A.B. 1933, B.S. in L.S. 1937, Syracuse University		LL.B. 1949, Georgetown University	Pa.
Engelthaler, Fred Edward	Ill.	Essaf, John Joseph	Va.
B.S. 1938, Illinois Institute of Technology		Esser, William Bernard	Md.
England, James	N.J.	Essers, Hendrick August	Pa.
Engle, Clarence Hess, Jr.	Kans.	Estanich, Joseph Anthony	D.C.
A.B. 1944, University of Kansas		Esten, Harold	D.C.
English, Chester Edwin, Jr.	D.C.	Estes, Armand William	Va.
Enis, Thalbert Wright	D.C.	Estes, Elihu Strong	
Ennis, Harry Hughes	Utah	B.S. 1947, Rutgers University	W.Va.
A.B. 1948, Brigham Young University		Estes, Jane Carroll	D.C.
Enright, Thomas Martin	Pa.	Estes, Katherine	Md.
Enriquez, Jean Gordon	Va.	Ethier, Henry Edward	D.C.
B.S. in H.E. 1949, The George Washington University		Ethington, Paul James	D.C.
Entler, David Herold	D.C.	B.S. 1949, Iowa State College	D.C.
A.B. 1949, University of Maryland		Ethington, Robert Mack	
Entler, Edmond Paul	W.Va.	Ettenger, Robert Lee III	Va.
Entler, Norma Jean	D.C.	B.S. 1948, University of North Carolina	
Entner, Alvin	Md.	Eubank, David Sutton	
B.S. 1948, Franklin and Marshall College		A.B. 1949, The George Washington University	Va.
Enyart, Mary Ellen	D.C.	Eubank, Elizabeth Dunn	
Enzel, Nathan	D.C.	B.S. 1928, Virginia State Teachers College, Farmville	Va.
Enzor, Thomas Henry, Jr.	Va.	Evans, Charlotte Johnson	
Epling, Mary Lee	D.C.	B.S. 1936, University of Michigan	D.C.
Eppley, Mary Ellen	D.C.	Evans, Clarence William	Mich.
A.B. 1948, Hood College		B.S. 1922, University of Delaware	
Epstein, Bart Jacob	Md.	Evans, Courtney Allen	Va.
B.S. 1948, Cornell University		LL.B. 1940, University of Detroit	D.C.
		Evans, David Robert	
		Evans, James Paul	



Evans, Joan Ann	Md.	Fagnano, John Michael	D.C.
Evans, John Penhallow, Jr.	D.C.	Fahey, Thomas Joseph	D.C.
Evans, Joyce Louise	D.C.	Fahringer, Victor Thouburn, Jr.	Va.
Evans, Nancy Abreo	D.C.	Fahrney, James Bowman	Va.
Evans, Norman Dean	Pa.	Fahrney, Jane Lee	D.C.
A.B. 1948, Ursinus College		Fahrney, Jean Stoner	Md.
Evans, Opal Augusta	Va.	Fahrney, Robert Herman	D.C.
A.B. 1930, University of Kansas		Fain, Martin Robert	Va.
City		Fair, Joseph Stutzman	
Evans, Richard Timothy	Ohio	A.B. 1947, Milligan College	Va.
Evans, Rowland, Jr.	Pa.	Fair, Martha Christine	Ind.
Evans, Thomas Earl	Va.	Fair, Robert James	
B.S. 1949, Duke University		A.B. 1947, The George Washington	
Evans, Walker Williams	D.C.	University	D.C.
B.S. 1939, Presbyterian College		Fairbanks, Eugene Francis	
Evans, William Benjamin, Jr.	D.C.	A.B. 1946, University of Kansas	Ky.
B.S. 1940, University of Maryland		Fairchild, John Cyrus	Pa.
A.M. 1946, Columbia University		Fairchild, Richard Paul	Tex.
Evans, William George	Pa.	Fairey, Robert Audean	Iowa
Eve, Christopher Fitzsimon	S.C.	Fairfield, Dean Elburn	D.C.
Evensen, Roald Norman	Va.	Fairweather, Elaine Marie	N.C.
B.S. 1943, University of Minnesota		Faison, Edmund Winston Jordan	
Evenson, Norma Doris	D.C.	A.B. 1948, The George Washington	
Evensta, Alma J.	D.C.	University	D.C.
Everdale, William Edward	D.C.	Faison, Sally Ann	D.C.
Everding, Charles Jerome	Md.	Faith, Don Carlos	D.C.
Everding, Vincent H.	Va.	A.B. 1949, The George Washington	
Everett, Franklin Milton	D.C.	University	D.C.
Everett, Gerald Waddell	Miss.	Faith, Edward Stuart	Ind.
Everett, Mary Helen	Ind.	Faith, Francis Reinsel	D.C.
Everett, Phoebe Ruth	Md.	Fakler, James Edward	D.C.
Everett, Robert Jerrell	N.M.	Falardeau, Thelma Elaine	W.Va.
Everhart, Clarence Edward, Jr.	Ohio	Falatko, Arbutus Beaver	Pa.
B.S. 1948, Western Reserve University		Falatko, Thomas Stephen	D.C.
Everly, Janice Marie	D.C.	Falbo, Samuel Diaz	Pa.
Evers, Herbert Joseph	D.C.	Falcinelli, Alfred Alexander	N.Y.
B.M.E. 1947, Cooper Union		Faljean, Gregory Joseph	D.C.
Everson, Cora Eva	Ohio	Falk, George	N.Y.
A.B. 1928, Ohio University		Falk, Gloria Halpern	
A.M. 1936, Ohio State University		A.B. 1947, The George Washington	
Eves, Walter Curtis	Md.	University	Conn.
B.S. 1948, University of Pennsylvania		Falk, Stephen Ackley	N.J.
Evinski, Casimer K.	Mich.	Falkinburg, Harry James, Jr.	Fla.
Ewald, Arden Anton, Jr.	Tenn.	Fallin, Thomas Lee	Va.
Ewerhardt, Janet Ladd	D.C.	Fallon, Hillman Oliver	N.Y.
A.B. 1949, Mary Washington College		Fallon, James Stephen	Nebr.
Ewing, Mary Kennedy	Va.	Falloon, James Hugh, Jr.	
Ewton, Merle Clement	Tex.	A.B. 1948, The George Washington	
Exten, Gerald Maurice	D.C.	University	Mass.
Eynon, Lee Ellen	Va.	Falvey, Jeremiah Joseph, Jr.	Ind.
Eyster, Marguerite Botts	Va.	Falvey, Thomas Joseph	Va.
Eyum, Charles Eugene III	N.C.	Famiglietti, Anthony Angelo	
A.B. 1949, The Citadel		M.E. 1929, Stevens Institute of	
		Technology	Md.
F		Famous, Priscilla	N.Y.
Faass, Robert Temple	Md.	Famulatte, Julius Anthony	Mass.
B.S.E. 1948, Princeton University		Fanek, Elizabeth Marsh	
Faber, Raymond Charles	N.Y.	A.B. 1942, Wellesley College	
B.B.A. 1945, College of the City of		A.M. 1947, University of Chicago	N.Y.
New York		Fanelli, George Marion, Jr.	N.J.
Fabi, Mario Nestor	Pa.	Fanget, Louis Alfred	
Facey, Robert Joseph	D.C.	A.B. 1939, Rutgers University	Pa.
Facinoli, Frank J.	W.Va.	Fannan, Helen Ruth	Md.
B.S. 1946, West Virginia Institute		Fantom, Herman Theodore, Jr.	Va.
of Technology		Farago, Kathleen Karpati	D.C.
Fackler, Walter David	D.C.	Farber, Viola Anna	D.C.
Fadeley, Jane McNeal	D.C.	Farinacci, Andrew Reed	N.Y.
Fadely, Ruth Chesley	Va.	Farkas, Howard	D.C.
Fader, Kenneth Blair	Mass.	Farley, Julia Marie	N.Y.
Fagin, Jack	N.Y.	Farley, Philip John	Va.
B.M.E. 1948, College of the City		Farmer, Dorothy Hughes	Mass.
of New York		Farmer, Francis Xavier	Va.
		Farmer, Robert Singleton	



Farnsworth, Carl Davis	W.Va.	Feaster, Eston Kermit	W.Va.
A.B. 1942, West Virginia University		A.B. 1935, Fairmont State College	
Farnsworth, Carl Jackson	W.Va.	A.M. 1940, West Virginia University	D.C.
A.B. 1936, New River State College		Featherstonhaugh, Arthur Cambronne	Puerto Rico
Farquhan, Charles	Md.	Febles, Francisco, Jr.	Nebr.
Farquharson, Sue Wahle	D.C.	Febrey, Albert William, Jr.	
Farr, Boyd Joseph	Utah	Federle, Jesse Alan	
Farr, Ralph Dwight	Md.	A.B. 1949, The George Washington University	
Farrell, Albert Bernard	D.C.	Federline, Charles Donald	Md.
A.B. 1937, University of Maryland		Fedirko, Natalie	D.C.
Farrell, Diane Carolyn	Va.	Fedirko, Walter	D.C.
Farrell, Edgar Henry, Jr.	N.Y.	A.B. 1947, Cornell University	Pa.
Farrell, Helen Lyddane	D.C.	Feeley, John Joseph	D.C.
Farrell, John Joseph	D.C.	Feeney, Joseph Edward, Jr.	Ohio
B.S. 1946, University of South Carolina		Feezel, Richard Albert	
Farrell, Katherine Louise	D.C.	B.S. 1948, Western Reserve University	D.C.
Farrally, Thomas Francis	Md.	Fegan, John Robert	D.C.
Farris, Frederick Joseph	Va.	Feingold, Leah Levine	D.C.
Farris, Raymond	N.C.	Feissner, John E., Jr.	N.Y.
Farrow, Robert Lucas	Ohio	Feit, Terry Sandra	D.C.
B.S. 1948, John Carroll University		Fela, George Henry	D.C.
Farthing, Eunice C.	D.C.	Feldman, Elizabeth Pitblado	Fla.
Farwell, Natalie Anna	N.J.	Feldman, Martha	
Fary, Thomas Franklin	Va.	B.S. 1947, University of Georgia	D.C.
Fassberg, Benjamin	Va.	Feldman, Melvin Martin	D.C.
Fassett, Ellen Longfellow	D.C.	Feldman, Sylvia Dollie	R.I.
Fast, Rita Sandra	N.J.	Felicetti, Dominic	D.C.
Faubion, Urban Hart	Tex.	Felker, Daniel Burke, Jr.	
B.S. in E.E. 1948, University of Texas		B.B.A. 1948, Emory University	Va.
Faulconer, John Reynolds, Jr.	Md.	Fell, Edward Louis	D.C.
Faulds, Margaret Anne	D.C.	Fellenbaum, Charles Martin	N.Y.
Fauley, Willeen	W.Va.	Feller, Ralph Miles	N.J.
Faulkner, Charles Edward	Md.	Fellers, Raymond David	D.C.
A.B. 1949, Bridgewater College		Fello, Joseph Amile	Va.
Faulkner, Josephine Brock	D.C.	Fellows, Keith Harrison	Va.
Faulkner, Richard Fulton	Va.	Feltman, David Brown	
Faunce, Margaret Ann	D.C.	Feltman, Robert Ferree	
Fauntleroy, William Dillard	D.C.	A.B. 1949, The George Washington University	Nebr.
Fausel, Walter Eugene	N.J.	Fender, Ross Calvin	Va.
B.S. 1929, Pennsylvania State College		Fenichell, Melvin Medford	
LL.B. 1948, Washington and Lee University		A.B. 1943, Dartmouth College	Mont.
LL.M. 1949, The George Washington University		Fenn, Geraldine Georgiana	Ga.
Faust, James Emory	D.C.	B.S. 1933, South Dakota State College	Pa.
A.B. 1948, The George Washington University		Fennell, Grover Cleveland, Jr.	Va.
Faust, Wilda Freebern	D.C.	Fennell, James Francis	D.C.
A.B. 1929, Iowa State Teachers College		Fennessy, Mark Paul	Va.
A.M. 1943, University of Florida		Fenster, Phyllis Rose	Va.
Faustman, Donald Milton	Va.	Fenstermaker, Robert James	Ill.
Favarella, Fiodie Paul	Pa.	Fenton, Ann Masemer	Md.
Favarella, Samuel Peter	Pa.	Fenton, Elizabeth Faulkner	D.C.
Favini, Josephine Louise	Pa.	Fenton, James Richard	D.C.
A.B. 1949, Marywood College		Fenton, Patricia Joanne	Va.
Favre, Pierre Andre	Switzerland	Fentress, Jacqueline Regina	Oreg.
Fawley, Edna Jeanne	Va.	Fenwick, Janet H.	N.J.
B.S. 1946, Madison College		Fenwick, Paul Robert	D.C.
Faxon, Glen Shirley	Va.	Ferero, Edward George	
Fay, Agnes Winifred	N.Y.	Ferguson, Charles Beverly	
Fay, Eleanor Therese	Pa.	A.M. 1949, University of Michigan	D.C.
Fay, Elmer Royal, Jr.	D.C.	Ferguson, Francis Joseph	
Feagan, Eugene Riley	Va.	B.S. 1946, LL.B. 1949, Georgetown University	N.C.
Fealy, Jack	Ala.	Ferguson, Isabel	
B.S. 1947, Birmingham Southern College		A.B. 1925, Agnes Scott College	Va.
Fealy, John Marvin	D.C.	A.M. 1927, University of Chicago	
Fearnow, John Tyler	W.Va.	Ferguson, Katherine McAllister	Pa.
		A.B. 1938, Ohio University	Va.
		Ferguson, William Dean	
		Ferguson, William Holmes	
		B.S. 1949, University of Tulsa	Va.
		Fern, Benjamin Richard	
		A.B. 1942, Queens College	



Fernandez, Carlos Benito	Cuba	Fincher, Julian Alexander	Md.
LL.D. 1943, University of Havana		A.B. 1948, The George Washington University	
LL.B. 1949, University of Missouri		Findlay, Karen Elizabeth	Pa.
Fernbach, Donald Joseph	N.Y.	Findur, Ellen May	N.Y.
A.B. 1948, Tusculum College		Fine, Bernard M.	Mass.
Ferree, Itha Henrietta	Pa.	Fine, Sidney Albert	N.Y.
Ferrell, Barbara Ann	D.C.	B.S. 1936, M.S. 1941, College of the City of New York	
Ferrell, Robert Bennett	Ga.	Fine, Sydelle Ann	D.C.
Ferreri, Angelo Thomas	D.C.	Fineblum, Carol Mazaroff	D.C.
B.S. 1948, Seton Hall College		Fineblum, Solomon Sidney	Md.
Ferreri, George Peter	N.Y.	Fink, Jules Verne	D.C.
Ferri, Guy	Pa.	A.B. 1949, The George Washington University	
B.S. 1948, Georgetown University		Fink, Rufus Black	Md.
Ferril, Dale Ray	Okla.	Fink, William Walter, Jr.	N.J.
Ferrill, Grace Cecelia	R.I.	Finken, John Anthony	Wis.
A.B. 1948, The George Washington University		B.S. 1947, M.S. 1948, University of Wisconsin	
Ferrin, Junius Farley, Jr.	D.C.	Finken, Warren Elroy	D.C.
Ferris, Lucille Grace	Ill.	B.S. in M.E. 1948, University of Wisconsin	
Ferris, Wendell Holmes	Md.	Finlay, Helen King	Va.
Fetterolf, Wallace Kermit	Pa.	A.B. 1945, Huntingdon College	
Feula, James Joseph	N.J.	A.M. 1947, The George Washington University	
Feusahrens, William Henry	D.C.	Finley, Charles Truman	Md.
Feyrer, Nancy	N.J.	Finn, James Carey	Mich.
Fiala, James George	D.C.	Finn, John Louis	Pa.
Fichandler, Zelda Diamond	D.C.	B.S. 1942, LL.B. 1949, Georgetown University	
A.B. 1945, Cornell University		Finn, John William	Conn.
Ficken, Rudolph William	Md.	Finn, Robert Wilfred	Mass.
Fiddler, Robert William	N.Y.	Finn, Walter Robert	Va.
B.M.E. 1946, College of the City of New York		A.B. 1939, Duke University	
Fiddler, Vera M.	D.C.	M.B.A. 1949, Harvard University	
A.B. 1947, Hunter College		Finnegan, Hugh James	Va.
Fiedler, August Frederick	D.C.	Finnegan, Thomas Robert	Maine
Field, Constance Robison	Kans.	Finnell, Albert Thomas	Va.
A.B. 1943, The George Washington University		Finnell, John Hare	W.Va.
Field, Gerald Alfred	Va.	A.B. 1930, West Virginia University	
Field, John Morris III	Va.	Finney, Charles Narber	Nebr.
Field, Milton Mortimer	N.Y.	Finstad, Alice Olga	N.D.
B.S. in E.E. 1948, University of Nebraska		A.B. 1947, Montana State University	
Fields, I. Oletha	Tex.	Finstad, Owen Moum	N.D.
Fields, Mary Lou	Va.	Finta, Quinn	Va.
Fields, Paul Henry, Jr.	Va.	Fiolek, Jacob Peter	Conn.
Fields, Roland Carmel	N.C.	A.B. 1949, The George Washington University	
Fields, Thomas	D.C.	Fiorella, Louis Vincent	Conn.
Filadelphia, Samuel Joseph	D.C.	A.B. 1941, Wesleyan University	
Filardo, Silvio Carl	D.C.	B.S. 1946, Georgetown University	
File, Richard Stewart, Jr.	Fla.	Firnbacher, Frederick Stephen	D.C.
Files, George Everett	Va.	Firtag, Mildred R.	D.C.
B.S. 1943, Tufts College	Md.	B.S. 1947, University of Maryland	
Filipek, Edward Gregory	D.C.	Firth, Edward Emery	Va.
A.B. 1949, The George Washington University		Fischel, Paul Emanuel	D.C.
Filipowicz, Casimir Anthony	N.Y.	Fischer, Harry Carl	D.C.
Filippone, Frank Joseph	Md.	A.B. 1949, The George Washington University	
Filippone, Joseph Stephen	D.C.	Fischer, John Janos	D.C.
Filler, John Robert	D.C.	LL.D. 1932, University of Szeged, Hungary	
Fillner, John Miles	D.C.	Fischer, Noell Leroy	Md.
Filsinger, Ruth Isabel	D.C.	Fischler, Jordan	D.C.
Finamore, Ardis Woodall	Md.	Fischman, Morton	Pa.
Finch, Chester Lee, Jr.	N.D.	Fischman, Morton William	Va.
B.S. 1943, Lehigh University	D.C.	Fish, James Monroe	Va.
Finch, Elizabeth	D.C.	B.S. 1948, College of William and Mary	
A.B. 1930, Furman University		Fish, Joanne Margaret	D.C.
Finch, Lowell Edwin	D.C.	A.B. 1949, The George Washington University	
Finch, Walter Gilchrist	D.C.		
B.E.E. 1940, Johns Hopkins University			
LL.B. 1948, M.B.A. 1949, Temple University			
LL.M. 1949, The George Washington University			



Fishbein, Lawrence	Md.	Fitzpatrick, William Joseph	Md.
B.S. 1948, Brooklyn College		B.Ch.E. 1939, Cooper Union	Va.
Fishbein, Rita	Md.	Fitzsimmons, Willard Allen	D.C.
Fishbein, Seymour Leonard	N.Y.	Fitzwilliams, Jeannette	
Fisher, Alan Edmund	Pa.	A.B. 1934, Vassar College	Va.
B.S. 1949, Pennsylvania State College		Flack, Chester	
Fisher, Barbara Ann	Va.	A.B. 1949, The George Washington	
Fisher, Carl William	Ohio	University	Va.
Fisher, Dorothy Anne	Va.	Flaherty, Robert Emery	Pa.
A.B. 1949, Mary Washington College		Flaim, Joseph Herman	Vt.
Fisher, Edith Gramling	D.C.	Flanagan, Bernard Lawrence	D.C.
Fisher, George Harrison	Va.	Flanagan, Paul	D.C.
Fisher, Henry Arthur	W.Va.	Flanagan, Wilfred Winsor	
A.B. 1943, West Virginia University		A.B. 1939, University of Chicago	Tex.
Fisher, Henry Estorge	La.	Flanders, Robert Lee	
Fisher, Hubert S.	D.C.	A.B. 1946, The George Washington	
Fisher, Hubert Wayne	Pa.	University	Pa.
Fisher, James Bernard	W.Va.	Flanigan, James Patrick	D.C.
B.S.F. 1936, University of Georgia		Flanigan, John William	
Fisher, James Lloyd	Mich.	A.B. 1949, Gannon College	Ill.
Fisher, James William	S.C.	Flannery, Curtis E.	D.C.
B.S. 1947, University of South		Flannery, Joseph Patrick	D.C.
Carolina		Flax, Louis	
Fisher, Jean Prichard	Va.	B.S. 1943, University of Maryland	D.C.
A.B. 1947, The George Washington		Flax, Miriam Audrey	Mich.
University		Flechl, Kurt Otto	Pa.
Fisher, John Edward	D.C.	Fleck, Stephen Edward	
Fisher, John Hanus	Md.	B.S. 1939, Thiel College	Del.
LL.D. 1931, University of Prague,		Fleetwood, George Harlan	Pa.
Czechoslovakia		Flegel, Martin Good	
Fisher, Joseph Henry	Mass.	B.S. 1940, Westchester State Teachers	
Fisher, Joseph Lyman	Va.	College, Pa.	D.C.
B.S. 1935, Bowdoin College		Fleischhaker, Albert	
A.M. 1938, Ph.D. 1947, Harvard		B.E.E. 1940, College of the City	
University		of New York	Pa.
Fisher, Margaret Winslow	Va.	Fleisher, Eli	
A.B. 1943, Reed College		B.S. 1949, University of Scranton	D.C.
Fisher, Marilouise	Pa.	Fleisher, Eric Wilfrid	D.C.
A.B. 1946, The George Washington		Fleishman, Irving	D.C.
University		Fleming, Barbara	Ohio
Fisher, Myers Norman	Va.	Fleming, Daniel Mahrt	Ohio
A.B. 1949, College of William and		Fleming, Douglas Riley	Va.
Mary		Fleming, Harold O'Neal	D.C.
Fisher, Robert Edwin	D.C.	Fleming, Lester Leroy	Md.
B.S.E. 1925, University of Michigan		Fleming, Mary Frances	N.C.
Fisher, Thomas Warren	Md.	Fleming, Michael Burron	
Fitch, Charles Thomas	Md.	B.S. 1949, High Point College	Va.
Fitch, Doris Jean	D.C.	Fleming, Robert Tulloss, Jr.	D.C.
Fitch, Harry John	Md.	Fleming, Rosemary Therese	Calif.
Fitch, Richard Walsh	Conn.	Fleishman, Wilfred Edwin	Va.
A.B. 1932, Amherst College		Fletcher, Bennie Lyle, Jr.	Md.
LL.B. 1949, Columbia University		Fletcher, Darrell Wade	Md.
Fitch, Stephen Henry	Md.	Fletcher, Ferne	D.C.
B.S. 1949, University of California		Fletcher, Janet Daphne	D.C.
at Los Angeles		Fletcher, Lloyd Lee	Va.
Fitton, Harvey Nelson, Jr.	Va.	Fletcher, Maurice Clinton	Va.
A.B. 1949, The George Washington		Fletcher, Silas	Md.
University		Fletcher, William Clayton	N.Y.
Fitzgerald, David Tarrant	Va.	Flexer, Morton	W.Va.
Fitzgerald, Donald Edward	D.C.	Flick, Paul Luther	
A.B. 1949, The George Washington		A.B. 1950, Shepherd College	Md.
University		Flieger, Howard Wentworth	Md.
Fitzgerald, Jack Phillips	N.C.	Flieger, Kenneth Hugh	Va.
Fitzgerald, Paul Albert	N.Y.	Flinchum, Vivian Woodard	
B.S. 1936, LL.B. 1938, St. John's		B.S. 1936, Mary Washington College	Ga.
University		Fling, Martha Kathryn	
Fitzhugh, Howard Lee, Jr.	Md.	A.B. 1949, The George Washington	
Fitzpatrick, Daniel Joseph	Mass.	University	D.C.
B.S. 1949, Georgetown University		Fling, Richard Benjamin	W.Va.
Fitzpatrick, Edward James	D.C.	Flinn, Samuel Roy	Va.
Fitzpatrick, George Ruddell	Pa.	Flint, Delbert Harrison	
Fitzpatrick, William Joseph	Md.	A.B. 1930, Salem College	N.Y.
		Flint, Joseph Howard	



Fliss, Richard Konrad	Wis.	Forbes, Ann Katherine	D.C.
Flizanes, John	Pa.	B.S. 1949, The George Washington University	Va.
Flomenhoft, Lorelei Jacobs	Va.	Forbes, James Dexter	Va.
Florance, John Edward	Va.	Forbes, John Terence	Md.
B.S. 1925, United States Naval Academy		Forcum, James Evans	Va.
Flores, Erminia	Kans.	Ford, Charles Dewey, Jr.	D.C.
Flores, Paul S.	D.C.	Ford, Eugene Francis	Kans.
A.B. 1948, Municipal University, Wichita		Ford, Herbert Wilson	R.I.
Floria, Joseph Angelo	Md.	Ford, J. D.	D.C.
Floryan, Frank P.	Md.	Ford, John Francis	Pa.
Flowers, Carl Vincent	Mich.	Ford, John Joseph	
Floyd, Charles Howard	D.C.	A.B. 1949, Catholic University of America	N.J.
Floyd, John Phillip	Mo.	Ford, John Joseph	W.Va.
Flurie, Eugene Gordon	Md.	Ford, Max Dale	D.C.
Flynn, Alfred Filer, Jr.	D.C.	Ford, Robert Nelson	N.J.
Flynn, Anna Helion	Md.	Ford, Virginia Gilliss	D.C.
B.E.E. 1940, Willimantic Teachers College		Fordham, Frank James	N.Y.
Flynn, Joseph John	Ohio	Foreman, Jack	Va.
A.B. 1948, The George Washington University		Foreman, Maryann Jeannette	Md.
Flynn, Lawrence Brenden	N.Y.	Forestell, James William	D.C.
Flynn, Paul Chadwick	Pa.	Forgy, William James	Va.
Flynn, Ruth Camille	Md.	Forman, Edward	
Flynn, Thomas Patrick, Jr.	Pa.	A.B. 1942, College of the City of New York	D.C.
Flyzik, Thomas Stephen	Pa.	Forman, Leonard	
Foelak, Judy Marilyn	N.Y.	B.S. 1940, College of the City of New York	D.C.
Foeller, Paul Francis	Wis.	Forman, Sidney	Va.
Foerster, Gertrude Elizabeth	D.C.	A.B. 1941, Brooklyn College	
Foerster, Herbert G.	D.C.	Forrest, Herbert Emerson	Md.
Fogel, Geraldine Frances	D.C.	A.B. 1948, The George Washington University	
Folcarelli, Ralph Joseph	Pa.	Forrest, Otto Norman, Jr.	Conn.
Foldenauer, Robert Carl	D.C.	A.B. 1949, Duke University	D.C.
Foley, Annette Haworth	Va.	Forrest, Richard Penn	Va.
B.S. 1948, Wilson Teachers College		Forrester, Robert Dwight	
Foley, Charlotte Andrews	Va.	Forry, John Emerson	
B.S. 1942, Longwood College		B.S. in M.E. 1939, Oklahoma Agricultural and Mechanical College	Pa.
Foley, George Vincent	D.C.	Forsberg, Francis Chandler	D.C.
Foley, James Edward	N.Y.	Forsht, Samuel Irvin, Jr.	Ohio
Foley, James Kieran	N.Y.	Forsman, Billy Baker	
Foley, James Simpson	Md.	A.B. 1949, Miami University	Va.
Foley, Martin Francis	D.C.	Forster, Eric Bert	Colo.
Foley, Michael Edward	D.C.	Forster, Richard DeVere	Md.
Foley, Thomas Emmett	D.C.	A.B. 1949, Denver University	D.C.
Foley, William John	Mo.	Forsythe, Frederick Walter, Jr.	
B.S. in M.E. 1948, Missouri School of Mines		Fort, Anna Beulah	Tenn.
Foley, William Lloyd, Jr.	D.C.	B.S. 1944, Wilson Teachers College	La.
Folger, Mabel Doane	Ga.	Fort, James Frazier	D.C.
Follin, John Walker	Va.	Fortinberry, George Kellie, Jr.	Va.
A.B. 1947, Yale University		Fortunato, Aldo	Minn.
Follman, Arthur Usher	D.C.	Forward, Myron Hal	
Folse, Kenneth Hemke	Fla.	Fosmark, Stephen Douglas	
Folsom, Dee Elwood	Va.	A.B. 1935, Macalester College	Ind.
B.S. 1948, Wilson Teachers College		Foster, Dudley Woodbridge	Ga.
Foltz, John Frederick	N.Y.	B.S. 1949, Purdue University	D.C.
Fondren, Evelyn Baird	Va.	Foster, Durward Lee	
B.S. 1937, Mississippi State Teachers College		Foster, George Howard	
Fonseca, Harold Antonio	D.C.	B.S. 1942, United States Naval Academy	Md.
Fontaine, Conrad Archilles	Tex.	Foster, James Buck	D.C.
A.B. 1949, Syracuse University		Foster, James Patrick	Maine
Fontaine, Robert Richard	Md.	Foster, Joan	D.C.
Foor, Milton Arlo	D.C.	Foster, Lelia White	Va.
A.B. 1947, University of Southern California		Foster, Maria Louise	Va.
Foot, Evelyn Patricia	D.C.	Foster, Marion Julian	
Foot, Vernon Stuart, Jr.	Va.	B.S. 1949, University of Virginia	Va.
Footen, Dorothy Virginia	Md.	Foster, Paul Allen	Mich.
		Foster, Robert Middleton	
		A.B. 1934, University of Michigan	



Foster, Rosamond Werner	Del.	Frank, Enid Helen	Mich.
A.B. 1947, Whitman College		Frank, Kitty Blair	D.C.
A.M. 1949, University of Virginia		A.B. 1943, University of Wisconsin	Md.
Foster, Stafford Clark	D.C.	Frank, Richard Harlan	D.C.
B.S. 1948, University of North Carolina		Frank, Robert Berliner	
Foster, Sylvia Elizabeth	Maine	A.B. 1940, University of North Carolina	Md.
Fostvedt, Donald Raymond	Mont.	Frank, Robert Roy	D.C.
Fotouhi, Abol Fazl	D.C.	Frank, Rose Magdalene	D.C.
Fouche, James Edwin	Va.	Frank, William Frederick	N.Y.
Foulke, Charles William	Ohio	Frankel, Abraham	
A.B. 1949, Ohio State University		B.S. 1933, Brooklyn College	
Foutty, Harold Allan	Md.	B.M.E. 1941, Cooper Union	D.C.
A.B. 1948, Glenville State College		Frankel, Josef Hirsh	Va.
Fowler, Basil Dolph, Jr.	Va.	Franklin, Jerome Curtis	D.C.
Fowler, Edward Vincent	Md.	Franklin, Jordan	
B.S. 1949, University of Maryland		B.S. 1946, Worcester Polytechnic Institute	D.C.
Fowler, George Clinton, Jr.	D.C.	Franklin, Philip Earle	R.I.
B.S. 1941, Georgetown University		Franklin, Rufus Matteson	
Fowler, Jessie Lorraine	D.C.	B.S. 1947, Massachusetts Institute of Technology	D.C.
Fowler, John Wesley	Md.	Franks, Diane	Md.
Fowler, Thomas	D.C.	Franks, Mary Sue	Va.
Fowles, J. Francis, Jr.	Utah	Frantz, Robert Bruce	Germany
B.S. 1946, University of Idaho		Franz, Felicitas Erna Marie	D.C.
LL.B. 1949, University of Utah	N.Y.	Franzinelli, Mary Virginia	Va.
Fox, Calvin		Franzman, Carl Walter	Md.
A.B. 1949, Brooklyn College	Ohio	Fraser, Donald Brix	Ohio
Fox, Dorothy Schwartz		Fraser, Donald Ross	N.Y.
A.B. 1947, The George Washington University		Fratkin, Edward	D.C.
Fox, Edward Louis	Okla.	Fratkin, Rayleona	D.C.
Fox, Elaine Maude	D.C.	Fratt, Nicholas Diller	D.C.
Fox, Inez Mae	D.C.	Frawley, Agnes Ann	D.C.
B.Ed. 1934, Plymouth Teachers College		Frazier, Alene McGregor	Va.
Fox, Lawrence Aaron	N.Y.	Frazier, Anna Kathryn	
A.B. 1944, Clark University		A.B. 1937, Smith College	Pa.
M.S. 1945, Syracuse University		Frazier, Jean R.	D.C.
Fox, Margaret Helen	D.C.	Frazier, Kenneth Burton	D.C.
Fox, Robert Claude	D.C.	Frazier, Lee Venon	Md.
Fox, Saul Aaron	N.Y.	Frech, Donald	Mass.
Fox, William Lloyd	Ohio	Frechtman, Miriam Isenman	
A.B. 1943, A.M. 1945, Western Reserve University		A.B. 1947, The George Washington University	D.C.
Fox, William Raymond	D.C.	Fredland, Laura	Okla.
Foye, Walter Francis	Mass.	Fredricks, Ilet Henry	N.D.
Fraber, Joseph Drew	D.C.	Fredricks, Robert Emmett	
Frahm, Herbert Standish	D.C.	B.S. 1946, United States Naval Academy	D.C.
Frailley, Robert Herbert	D.C.	Free, Elise Marie	Va.
B.S. 1949, American University		Freeborn, Marion W.	
Fraker, Walter Vere	Tex.	B.E. 1945, Plattsburg State Teachers College	D.C.
Frakes, William Robert	Ill.	Freed, Richard Howard	D.C.
Frallic, John Eugene	Md.	Freedman, Frances Nadler	D.C.
Frame, Don P.	Va.	Freedman, Loretta	Conn.
Frampton, James Elsworth	Ind.	Freedman, Samuel Sumner	N.C.
France, Sarah Catherine	Va.	Freedman, William	
A.B. 1939, University of Missouri		B.S. in M.E. 1945, Duke University	Ohio
Francis, Audrey	D.C.	Freedom, John Gust	
Francis, Clifford Dale	Va.	A.B. 1948, Kent State University	Va.
Francis, Ernestine	Tex.	Freeman, Aaron Elliott	Ga.
Francis, Lewis Watkins	Va.	Freeman, Harlan Edwin	Md.
B.S. 1943, University of Missouri		Freeman, Horatio Putman	
Francis, Milton John	Md.	B.S. 1947, Dickinson College	Va.
Francis, Rodger Edward	Md.	Freeman, James Thomas	Mass.
Franco-Holguin, Ernesto	Colombia	Freeman, Lawrence Dudley	
LL.D. 1941, Major College of the Rosary, Bogotá, Colombia		B.E.E. 1949, The George Washington University	Va.
Frank, Arnold Roy	Md.	Freeman, Leon Harvey	Del.
A.B. 1923, A.M. 1926, Johns Hopkins University		Freeman, Marian Virginia	
Frank, Catherine Mary	Conn.	B.S. 1948, M.S. 1949, The George Washington University	
A.M. 1949, Georgetown University			
Frank, Clay Farrar	Va.		



Freeman, Mary Blanche A.B. 1940, University of North Carolina	N.C.	Friedlander, Harold B.S. 1934, College of the City of New York	D.C.
Freeman, Mary Eleanor A.B. 1948, Hunter College	D.C.	Friedlander, Philip Peyser, Jr. A.M. 1939, The George Washington University	Va. D.C.
Freeman, Rhoda Golden A.B. 1949, University of Chicago	Ill.	Friedline, Alice Rebecca Friedman, Barbara Davidson	Md.
Freeman, Richard Alan B.E.E. 1944, College of the City of New York	N.Y.	Friedman, Bessie Friedman, Charlotte Jay	D.C. D.C.
Freer, Barry Sullivan Freese, Herbert Allan, Jr.	Ohio N.J.	Friedman, David Benjamin Friendman, Fannie	D.C. D.C.
Fresland, Jacob William, Jr. Freidin, Harold Richard	Va. D.C.	Friedman, Gerald H. Friedman, John R.	D.C. Va.
Freidlin, Julius Norman A.B. 1939, Duke University	Fla. Va.	Friedman, Joseph Friedman, Leonard S.	N.Y. N.Y.
Freisem, George Patrick B.S.S. 1949, Georgetown University	Va.	Friedman, Leonard S. B.S. 1947, College of the City of New York	N.J. N.J.
French, Bruce Alexander French, Carmene Sweig	D.C. D.C.	Friedman, Lila Golda Friedman, Mildred Yvette	N.J. D.C.
French, Marjorie Grace A.B. 1926, Ohio State University	Va.	Friedman, Morris Friedman, Norman	N.Y.
French, William E. B.Ch.E. 1943, University of Florida	D.C. Fla.	Friedman, Norman B.M.E. 1945, College of the City of New York	Va.
French, Carolyn Frances Frenkel, George L.	D.C. N.Y.	Friedman, Sidney B.S. 1935, Long Island University	N.Y.
Freret, Elizabeth Strachan B.B.A. 1942, Tulane University	Va.	Friedman, Sidney A.B. 1939, Brooklyn College	N.Y.
Freseman, Phyllis Langlitt Freseman, Rose Alcaraz	D.C. Mass.	Friedman, Sol Friedmann, Edward	Md. Md.
Freshman, Arthur Samuel Fresto, Restituto Treille	Va. Mass.	Friedmann, Paul Frederick Friedrich, Helen Elizabeth	D.C. N.Y.
Freudenberg, Harold William B.S. in E.E. 1948, University of Illinois	Wis. Ill.	Frigione, Florence Frances Frillman, Florian Edward	Pa. D.C.
Freund, Frederick G. LL.B. 1941, Washington College of Law	Va.	Frischmann, Donald William B.S. in Ed. 1942, Indiana State Teachers College, Pa.	Va.
Freundel, Milton A.B. 1949, The George Washington University	N.Y.	A.M. in Ed. 1948, The George Washington University	D.C.
Frey, Helen Gladys Frey, Saleem DeWitt	N.Y. D.C.	Frishman, Karl Herbert Frishman, Samuel E.	Md. Va.
Freyneck, Arthur Julius B.S. 1941, Muhlenberg College	D.C.	Fritzsche, Margaret Beverly Fritz, Bernard James	N.Y.
Friborg, Donald Martin B.B.A. 1948, University of Minnesota	Minn.	Fritz, Charles Walter Fritz, Sigmund	D.C. N.Y.
Frick, Josephine Elizabeth Frick, Warren Allen	D.C. Ill.	Frodyma, Michael Mitchell B.S. 1942, Massachusetts State College	Mass.
Fricke, Florence Wilma B.S. in L.S. 1938, University of Minnesota	D.C.	A.M. 1947, Columbia University M.S. 1949, University of Hawaii	Ind.
Frid, Louis Irvin Friday, Edith Marguerite	Md. Pa.	Froelich, Kathryn A.B. 1942, Evansville College	D.C.
Fridgen, Katherine Elizabeth Fried, Alfred Sigmund	Minn. Md.	Frohmman, Alice Patricia Froio, Frances Marie	N.J. Iowa
Fried, Alvin Bartlett Fried, Edward Robert	D.C. N.Y.	Frommelt, Alton Alois Frost, Jack Arthur	D.C. D.C.
A.B. 1941, University of Michigan Fried, Maurice	N.Y.	Frost, Laurance Hugh B.S. 1926, United States Naval Academy	Kans.
Friedberg, Felix B.S. 1944, University of Denver	D.C.	Fry, Elmer Charles Fry, Ernest William	Va. D.C.
Ph.D. 1947, University of California Friedberg, Seymour	N.J.	Fry, Eugene Nathan A.B. 1949, The George Washington University	D.C.
A.B. 1948, New York University Friedenberg, Ina Ruth	D.C.	Fry, George Edward Frye, Mildred Louise	Pa.
Friedlander, Blaine Peyser A.B. 1948, University of Virginia	Va.	B.S. 1937, University of Pittsburgh	



Frye, Theodore Raymond	Ohio	Futoran, Josef	Va.
A.B. 1947, Oberlin College		B.S. 1935, M.S. 1936, College of the	
Fryer, Dorothea Constance	D.C.	City of New York	D.C.
Fryer, Norman Ewing, Jr.	Md.	Futrovsky, Charles	
B.S. 1938, United States Naval		B.S. 1947, M.S. 1948, The George	
Academy		Washington University	Md.
Fuchs, Edmund F.	D.C.	Futterman, Sidney	N.Y.
B.S. 1935, St. John's University		Fuyat, Henry Noel, Jr.	
A.M. 1942, Fordham University		B.S. 1946, Rhode Island State College	
Fuchs, John Edward, Jr.	D.C.		
Fuchs, William Francis	D.C.	G	
Fugate, John Paul	Ohio		
Fugate, Wilbur Lindsay	Va.	Gable, Richard Bennett	S.C.
A.B. 1934, Davidson College		Gable, Robert Barth	Pa.
LL.B. 1937, University of Virginia		Gabletsa, Mary Jane	N.H.
Fulcher, Robert Clinton, Jr.	Md.	A.B. 1947, Wellesley College	Va.
A.B. 1949, The George Washington		Gabriel, Hilde	D.C.
University		Gabrielian, Paruir	Md.
Fulesdy, Charles Andrew	Pa.	Gaegler, Francis Xavier, Jr.	D.C.
Fuller, Charles Edward	N.Y.	Gaertner, Robert Montague	Md.
Fuller, Frank Gardner	R.I.	Gaetano, Anthony	D.C.
B.S. 1939, Aurora College		Gager, Charles Cotter, Jr.	D.C.
A.M. 1947, The George Washington		Gagliano, Robert Chester	D.C.
University		Gagnon, Henry, Jr.	Ill.
Fuller, George Tucker	D.C.	Gail, William Albert	
Fuller, James Harlain	D.C.	B.S. in M.E. 1948, University of	
Fuller, Robert Lannes	D.C.	Illinois	Va.
A.B. 1939, Bates College		Gailbreath, Mary Nell	Va.
A.M. 1941, Boston University		Gaines, Robert Wesley, Jr.	D.C.
Fullerton, Gay Williston	Va.	Gaines, William Marion	D.C.
Fulmer, Donna Marie	Pa.	Gainey, Burtus Allen	D.C.
Fulp, James Douglas, Jr.	S.C.	Galan, Wenceslao Llegado	N.Y.
B.S. 1934, United States Naval		Galane, Morton Robert	
Academy		B.E.E. 1946, College of the City of	
Fulton, Leroy Edgar	Calif.	New York	Md.
A.B. 1949, The George Washington		Galbreath, William Wilson	
University		A.B. 1939, M.S. in Ed. 1940,	
Funderburk, Charles Wade	S.C.	Pennsylvania State College	D.C.
Funderburk, Ray	Va.	Gale, Guy Harrison, Jr.	Va.
Funger, Morton Irwin	Va.	Gale, Thomas Boyle	
Funk, James Samuel	D.C.	B.S. 1917, United States Naval	
Funk, Richard Hodges	Kans.	Academy	Md.
Funkhouser, Claude	Va.	Galeano, Charles Joseph	
B.S. in M.E. 1944, University of		B.M.E. 1949, The George Washington	
Maryland		University	D.C.
Funkhouser, Curtis Lee	Va.	Galfond, David Charles	Mass.
Funston, Chester Clifford	Kans.	Galini, Victor John	
Funt, Tobias	Mo.	LL.B. 1941, Georgetown University	Va.
A.B. 1938, University of Missouri		Gall, John Christian, Jr.	D.C.
Furiga, Peter Lorenzo	Mass.	Gallagher, Barbara Blaine	Va.
B.S. in Ed. 1943, Boston University		Gallagher, Bernard Francis	N.Y.
Furlow, Thomas William	Ark.	Gallagher, James Frederick	Va.
Furlow, William Loomis	Minn.	Gallagher, Joan Marietta	Md.
A.B. 1949, Carleton College		Gallagher, John Joseph	D.C.
Furman, Erin Maclay	Va.	Gallagher, Joseph Matthew	
A.B. 1947, University of Texas		B.S. in P.E. 1943, The George	
Furman, Eugene Marvin	D.C.	Washington University	D.C.
Furman, Martha	N.Y.	Gallagher, Leona Pearl	Md.
A.B. 1944, Brooklyn College		Gallagher, Margaret Wagner	D.C.
Furman, Paul Larry	D.C.	Gallagher, William B.	N.J.
Furness, Royal Anthony	Va.	Gallagher, William George	N.Y.
B.S. 1928, Colgate University		Gallant, Arthur	Puerto Rico
Furr, Ruby L.	Tex.	Gallart-Mendia, Rafael	N.M.
Furson, Robert Henry	D.C.	Gallegos, Eleuterio Valdemar	N.M.
Furst, Howard Irving	Calif.	Gallegos, Minerva Victoria	
A.B. 1942, University of California		A.B. 1947, Catholic University of	
at Los Angeles		America	D.C.
Furtado, Laura	Mass.	Galligan, James Francis	N.Y.
Furth, Frederick Raymond	Md.	Gallo, Raphael Edmund	N.C.
B.S. 1924, United States Naval		Galloway, Esther Augustine	Md.
Academy		Gallup, Elizabeth Hale	Md.
M.S. 1932, Yale University		Gallup, Meredith Hale	D.C.
Fusini, Carlo Charles	Mass.	Galpeer, Robert	



Galuska, Sophie Justine	D.C.	Garner, Earle Whitley	Va.
Galvin, Frances Wright	Va.	Garner, Frances Lewis	Va.
Galvin, William Michael, Jr.	Md.	B.S. 1928, Mary Washington College	
Gamache, John Arthur	Mich.	Garner, Frederick Reed, Jr.	D.C.
Gambal, Sergius	D.C.	Garner, George William	D.C.
Gamble, John Jasper	Md.	Garner, Louis Herbert	D.C.
Gamboa, Lionel Kenneth	Philippines	Garner, Yancey Holmes	Md.
Gamboa, Melquiades Irving, Jr.	Philippines	Garnett, Carroll Marion	Va.
Gamboa, Pearl Grace	Philippines	B.S. 1948, The George Washington	
Gamertsfelder, Howard Earl	D.C.	University	
Ganley, John Leo, Jr.	Va.	Garnett, James Harper	D.C.
Gannon, Albert William	N.J.	A.B. 1947, University of Virginia	
Gannon, Ann Deborah	N.J.	Garrahan, Norman	D.C.
A.B. 1949, Antioch College		Garren, Edward Burgess	D.C.
Gans, Joan Regina	N.J.	Garrett, Anthony Matthew, Jr.	D.C.
Ganss, Harold Philip, Jr.	D.C.	Garrett, C. Donald	Va.
Gant, Jessie Florence	Ill.	B.S. 1931, Franklin and Marshall	
Gantz, Frank Elwin, Jr.	D.C.	College	
Gantz, Gertrude Soule	Md.	Garrett, Elizabeth Anne	Va.
A.B. 1935, Yankton College		Garrett, Mary Jane	Va.
Gantz, Katherine Gordon	D.C.	A.B. 1943, Florida State College for	
Garbee, Edwin Theodore	Va.	Women	
Garber, Bruce Daniel	Md.	Garrett, Paul Weatherly	D.C.
Garber, Edythe Alyne	D.C.	A.B. 1949, The George Washington	
A.B. 1939, The George Washington		University	
Garcia, Antonio	D.C.	Garrett, Rufus Sanders, Jr.	Tex.
Garcia, Lee	Tex.	B.S. 1946, United States Military	
Garcia, Lupe	N.M.	Academy	
Garcia, Manuel Gilberto	Ariz.	Garrett, William Donaldson	D.C.
A.B. 1949, The George Washington		Garris, Fred Lee	D.C.
University		Garris, Jack J.	Mich.
Gard, John Glennwood	N.C.	A.B. 1947, University of Michigan	
Gardner, Benjamin Franklin, Jr.	Md.	Garrison, Ellison Cowart	Va.
Gardner, Edith Rose	Va.	Garrison, Ethel L.	Md.
A.B. 1943, University of California at		Garrison, James Luther	Md.
Los Angeles		Garrison, Lynn Willard	Md.
LL.B. 1948, The George Washington		Garrison, Milton Eldridge	D.C.
University		Garro, Edward Joseph	Nev.
Gardner, John Kelsey	D.C.	Garlan, Charles Gregory	N.J.
Gardner, Marshall Closson	Ind.	A.B. 1948, Roanoke College	
B.S. 1943, The George Washington		Gartner, Robert Martin	D.C.
University		Gartrell, Archibald, Jr.	Md.
Gardner, Nancy Herndon	D.C.	Garver, Clifford Elliott	S.D.
Gardner, Paul Truman	Mich.	Garvey, Mary Agnes	D.C.
A.B. 1946, University of Michigan		Garvin, Millard Barnette	Ill.
Gardner, Richard Harland	D.C.	Garza, Celedonio Marcelino	Va.
Gardner, Sophia Schneider	Va.	Gasda, Bernard Herbert	Pa.
B.S. 1936, New York University		Gaskins, Franklin Jefferson	D.C.
Gardner, Spencer Delos	Mich.	Gaskins, Richard Hancock	D.C.
LL.B. 1949, The George Washington		Gasque, Martha McKay	D.C.
University		Gass, Charles	D.C.
Gardner, Virginia Mason	Va.	Gass, Louis	D.C.
Gardner, Walter Thomas, Jr.	Va.	Gassaway, Jim Fooshee	Okla.
Gareau, Charles Frederick	Va.	A.B. 1949, East Central State College	
B.S. in M.E. 1939, The George		Gassert, William Joseph	D.C.
Washington University		Gassner, Florence Dorothea	Mo.
Garfinkle, Melvin	D.C.	Gates, Allan Williams	D.C.
Gargano, Freddie Patrick	N.J.	Gates, John William	Calif.
B.S. 1947, The George Washington		Gates, Lucille E.	D.C.
University		Gates, Mark Moses	Va.
Gargus, James Leon	D.C.	Gates, Maurita Virginia	Pa.
Garhart, Bernard Howard	Va.	Gates, Ruth Marie	Va.
B.S. in Ed. 1948, Slippery Rock State		Gates, Walter Samuel	Ky.
Teachers College, Pa.		A.B. 1942, Centre College	
Garland, Samuel Abraham	Pa.	Gates, William Baxter	Va.
Garland, William Arthur	D.C.	Gatlin, Daniel Ray	Md.
Garlock, Edward Allen, Jr.	Md.	B.M.E. 1947, University of Southern	
B.S. 1943, The George Washington		California	
University		Gatrell, John David	Va.
Garlock, Robert Austin	N.Y.	Gatten, Lloyd Rex	Va.
A.B. 1949, Union College		Gattone, Charles, Jr.	D.C.
Garner, Alice Elizabeth	D.C.	A.B. 1950, Shepherd College	
		Gattoni, Joseph Alexander	Mass.



Gau, Wilfred William	Minn.	Gelfand, Sydney Samjester	D.C.
Gaudet, Richard Austin	Mass.	Geller, Irving	N.J.
B.S. 1947, University of Rochester		A.B. 1949, The George Washington	
Gaughan, John Vincent	Va.	University	D.C.
A.B. 1932, Villanova College		Gelly, George Vaughan	D.C.
LL.B. 1949, The George Washington		Gelly, Margaret Clifford	D.C.
University		Gelman, Herman A.	N.Y.
Gaughan, Vincent Michael	N.Y.	A.B. 1948, Brooklyn College	N.Y.
Gaus, William Carl	Pa.	Geloso, Samuel Theodore	Pa.
A.B. 1949, Bucknell University		Gemmell, John Donald	Calif.
Gause, William Charles	Md.	Gemmell, Ronald Harvey	D.C.
Gauss, Arthur	Md.	Gemmell, Thomas Joseph	Conn.
B.S. in E.E. 1933, Drexel Institute of		Gemza, Theodore Anthony	D.C.
Technology		Generelly, Richard Fleury	Mass.
Gauthier, Eugene Aldrick	D.C.	Genthner, Elinor Hale	Pa.
Gautier, John Donovan	Miss.	Gentile, Augustine	Ill.
Gaver, Eva Florence	N.Y.	Gentile, George Marvin	
Gavio, Martin Jerome	N.J.	B.S. 1946, Northwestern University	W.Va.
A.B. 1949, Norwich University		Gentile, John Joseph	D.C.
Gavrisheff, Ellen	D.C.	Gentner, Evelyn Gifford	D.C.
A.B. 1944, Our Lady of the Lake		Gentner, Walter Andrew	D.C.
College		Gentry, Lynwood Paige	D.C.
Gaynor, Donald Bernard	Md.	George, Betty Lou	Ohio
Gearing, Hilyer Fulford	Md.	George, Harry Clair	
B.S. 1919, United States Naval		B.S. 1944, Mount Union College	Va.
Academy		George, James Barron	
Geasy, David Wesley	D.C.	A.B. 1948, College of William and	
Gebeaux, Ruth Watson	Va.	Mary	Va.
A.B. 1935, Greensboro College		George, Joan Marjorie	Mass.
Gebhardt, Charles Robert	Va.	George, Joseph Homer	Va.
B.S. 1938, United States Naval		George, Lynn Darcy	Va.
Academy		George, Myra Pittenger	Va.
Gechter, Bernard Joseph	Va.	George, Richard Bennett	
A.B. 1938, University of Connecticut		A.B. 1949, The George Washington	
Gedney, Plater Tayloe	D.C.	University	Pa.
Gee, Margaret	D.C.	George, Robert B.	D.C.
Geeslin, Ernest L.	Ga.	Georgeson, James Demetrios	Venezuela
Gehri, Sylvia Yolande	W.Va.	Georget, Henry Leonard	Va.
Geib, Esther Danehower	Md.	Georgevitch, Theodore Alexander	D.C.
B.S. 1936, Pennsylvania State		Georgion, Melton Michel	Ind.
Teachers College, West Chester		Gephardt, Thomas Steuber	Mo.
Geib, Lester Myron	Md.	Gerard, Richard	
Geier, Conrad Schroeder, Jr.	Va.	B.S. 1949, Kansas State College	Md.
A.B. 1949, The George Washington		Gerber, Henry Leonard	Va.
University		Gerber, Sara Kathryn	Ohio
Geier, Frederick Raymond	Ohio	Gerdie, Albert Bernard	Tex.
B.B.A. 1948, University of Toledo		Gerecke, William Beman	
Geiger, Herbert George	Wis.	B.S. 1949, Trinity University	Mich.
Geiger, Lucile Mary	Minn.	Gerende, Jean Louise	
Geiger, Molly Ruth	D.C.	B.S. 1928, Bay City College	
A.B. 1948, Vassar College		M.S.P.H. 1940, University of	
Geigle, Ralph Calvin	D.C.	Michigan	Mich.
A.B. 1935, Susquehanna University		Gerende, Lincoln Jennings	Va.
A.M. 1940, Columbia University		Gerhard, Edmund Joseph	Md.
Geis, Lawrence Raymond	Va.	Gerhardt, Robert Bernard	
B.S. 1944, United States Naval		B.S. in M.E. 1947, Northwestern	
Academy		University	D.C.
Geiser, Anton	D.C.	Gerhold, William Franklin	Wis.
Geiser, Jesse Browning	D.C.	Gerlach, Marilyn Lillie	Ind.
Geisler, R. Gene	Mo.	German, John William, Jr.	
Geist, John Willard	Pa.	B.S. 1944, Rose Polytechnic Institute	Mich.
B.S. 1934, United States Naval		German, Josephine Elisabeth	
Academy		A.B. 1948, University of Michigan	Md.
Gekker, Catherine Osann	D.C.	German, Waldo Ross	Va.
Gekker, Paul	D.C.	Germas, Demosthenes James	D.C.
A.B. 1948, A.M. 1949, The George		Gernova, Lola Patricia	D.C.
Washington University		Gerow, Lee Saunders	
Gelak, Bernard Andrew	N.Y.	B.S. 1913, Virginia Military Institute	Va.
B.S. in E.E. 1947, Syracuse University		Gershaneck, Viola Keeler	D.C.
Gelb, Joseph Donald	Pa.	Gershenson, Leo Eli	
B.S. 1950, University of Scranton		B.B.A. 1950, College of the City of	
Gelby, Walter Henry	N.Y.	New York	Va.
A.B. 1941, New York University		Gerson, Morris	



Gersten, Aaron Lewis	Conn.	Gieseck, Charles Frederick	Va.
B.S. 1948, University of Connecticut		Gifford, Harold Gene	Nebr.
Gersten, Harold	Conn.	Gifford, Yale Wesley	Kans.
Gerstenecker, Carol Lorain	Va.	A.B. 1948, The George Washington	
Gertsch, Betty Lee	D.C.	University	
Geserick, Harry Clarence	D.C.	Giglio, William Peter	Md.
Gessow, Orving David	Pa.	Gilbert, Ellis Ronald	Mo.
B.Ch.E. 1939, College of the City of		Gilbert, Foster Ingram	Va.
New York		Gilbert, Fred Stewart, Jr.	Fla.
M.S. 1945, University of Pennsylvania		B.S. 1935, LL.B. 1938, University of	
Getsinger, Norman Wilson	Mich.	Florida	
A.B. 1941, Harvard University		LL.M. 1948, The George Washington	
Gettings, Theresa Anne	Mass.	University	
B.S. in Ed. 1931, Worcester State		Gilbert, George Milton	Fla.
Teachers College		A.B. 1949, The George Washington	
Ghesling, William Marvin	Ga.	University	
Ghiardi, Mary Catherine	Mich.	Gilbert, Harry Turner, Jr.	D.C.
B.S. 1941, Northern Michigan College		A.B. 1935, Princeton University	
Ghosh, Olga	D.C.	Gilbert, Humphrey	Va.
A.B. 1948, Indiana University		Gilbert, James Bryson	Pa.
Gianascol, Margaret Catherine	D.C.	B.S. 1943, Haverford College	
Giancaspro, John	D.C.	M.D. 1946, Jefferson Medical College	
B.S.S. 1942, College of the City of		Gilbert, Milton Edwin	D.C.
New York		B.M.E. 1948, College of the City of	
A.M. in Ed. 1949 The George		New York	
Washington University		Gilbert, Nancy	Md.
Giancoli, Mary Ann	D.C.	Gilbert, Stanley Ormand	D.C.
Giangreco, Angelo Andrew	D.C.	Gilchrist, Wayne Richard	Mo.
Giannone, Charles	N.J.	Giles, Henry Ernest	Md.
Giaquinto, Eugene Louis, Jr.	Conn.	A.B. 1927, Washington State College	
Giardina, Flora Maye	Miss.	A.M. 1936, Colorado State College of	
A.B. 1947, Millsaps College		Education	
Gibbons, Florence Katherine	Conn.	Giles, Mary Elizabeth	D.C.
Gibbons, Helen Elizabeth	D.C.	A.B. 1948, The George Washington	
Gibbons, Mary Graf	N.Y.	University	
A.B. 1940, Allegheny College		Gilford, Leon	N.Y.
Gibbs, Edward Charles	D.C.	A.B. 1939, Brooklyn College	
Gibbs, Elizabeth Dill	D.C.	Gilham, Nathaniel Richard	Md.
A.B. 1941, East Carolina Teachers		Giliotti, Peter Alfonso	D.C.
College		Gill, Daryl Virginia	Md.
Gibbs, John William	Va.	Gill, Frank Edward	Iowa
A.B. 1946, The George Washington		Gill, Peter Lawrence	Md.
University		B.S. 1943, Harvard University	
Gibbs, Julian Glenwood, Jr.	D.C.	Gill, Rowland Pearson	La.
Gibbs, Ray Allison, Jr.	Va.	A.B. 1949, Louisiana Polytechnic	
Gibbs, Robert Stewart	N.Y.	Institute	
Gibbs, Thomas Edwin	W.Va.	Gillard, William Henry	D.C.
Gibney, Edith Cecelia	Pa.	Gilleam, Marfred Elwood	Tex.
Gibson, Charles Edward	Ohio	Gilleland, Mary Elizabeth	Ark.
M.S. 1945, California Institute of		Gillen, Hugh Chisholm	Wis.
Technology		A.B. 1937, University of Wisconsin	
Gibson, Ervin DeWitt	D.C.	Gillespie, Constantine John	D.C.
A.B. 1927, Northeastern State College,		Gillespie, Elizabeth R.	Ky.
Okla.		Gillespie, George John	D.C.
Gibson, James Columbus	Tenn.	Gillespie, Mildred Clara	Va.
Gibson, James Frederick	Ill.	Gillespie, Richard James	D.C.
A.B. 1949, The George Washington		Gillespie, Ruth Joyce	Tenn.
University		B.S. 1948, American University	
Gibson, James Wallace	Va.	Gillette, Kirby Marvin	D.C.
B.S. 1941, Hampden-Sydney College		A.B. 1931, University of Michigan	
Gibson, John Murray	Md.	LL.B. 1937, Wayne University	
B.S. 1934, Washington and Jefferson		Gillette, Mark Freeman	Iowa
College		Gillette, Nadine Gray	D.C.
Gibson, Paul	D.C.	Gillette, Noeth Bolling	Mont.
Gibson, Rankin MacDougal	Mo.	Gillette, Warren	D.C.
LL.B. 1939, University of Missouri		B.S. 1942, California Institute of	
B.S.L. 1948, St. Paul College of Law		Technology	
Gibson, Robert Carl	Va.	Gilliam, Frank Peter	Ill.
B.S. 1938, Eastern Illinois State		B.M.E. 1937, Catholic University of	
College		America	
A.M. 1942, University of Illinois		Gilliam, Homer, Jr.	Va.
Giese, Edwin James	Ill.	Gillis, Harry Arthur, Jr.	Ohio
Giese, Raymond Thomas	Kans.	A.B. 1942, Ohio Wesleyan University	



Gillis, Margaret Christine	Maine	Gleason, Marguerite Ann	D.C.
Gillman, Robert David	D.C.	Glenn, Charles Hubert, Jr.	Md.
A.B. 1939, B.Mus. 1940, Yale University		Glenn, Gertrude Marion	N.J.
A.M. 1946, Columbia University		B.S. 1942, New Jersey State Teachers College, Trenton	
Gills, James Wellington	W.Va.	Glenn, John Ralston	Pa.
Gills, Lelia Rose	D.C.	Glenn, Leo Clarence	Ill.
Gills, Louis Catlin	Va.	Glenn, Lucille Wright	Va.
Gilman, Charles Sherrill	Va.	Glenn, Ralph Ray	N.C.
B.S. 1940, University of Pittsburgh		A.B. 1946, University of North Carolina	
M.S. 1943, D.Sc. 1949, Massachusetts Institute of Technology		Glenn, Rosemary	N.J.
Gilman, Donald Lawrence	Mass.	Glettler, Bernard Urbam	Mich.
Gilmartin, Francis Edward, Jr.	N.Y.	Glew, William Bainbridge	D.C.
Gilmore, Edward Lee	W.Va.	Glickman, Lois	N.J.
A.B. 1949, West Virginia University		Glickman, Walter	D.C.
Gilmore, Frank Peter	Ill.	Glinicki, Florence Cecilia	Mich.
B.S. 1927, M.D. 1929, Loyola University		Glockler, Annabel	Md.
LL.B. 1949, The George Washington University		B.A. 1948, Western Maryland College	D.C.
Gilmore, William Earl	N.J.	Glorioso, Anthony Robert	Va.
Gilmour, Robert Andrew	Conn.	Glover, Donald Jackson	
Gilpin, John Henry	Md.	B.S. 1949, The George Washington University	
Gilroy, Francis Xavier	N.Y.	Glovinsky, Sam	D.C.
Gilroy, Lillian Rebecca	Ala.	Glowacki, John Henry	Pa.
Gilstrap, William James	Ill.	B.S. 1948, Bucknell University	Pa.
A.B. 1939, University of Kansas		Glowacki, Peter	
Gimbel, Ruth Doris	D.C.	B.S. 1949, Bucknell University	D.C.
Gimble, Abraham Isaac	D.C.	Gloyd, Mary Caroline	Ohio
B.S. 1943, M.S. 1948, The George Washington University		Gluck, Henry	
Gimble, Gilbert	D.C.	A.B. 1947, Harvard University	D.C.
Gindoff, Alan Solomon	N.Y.	Glushakow, Miriam Novakov	Mass.
Gingell, Robert Arthur	Md.	Glynn, Ernest Belter	Iowa
A.B. 1948, The George Washington University		Gnam, James Henry	Calif.
Ginsberg, Albert	N.Y.	Gnatt, Philip M.	Conn.
Ginsberg, David Kellner	D.C.	Gochberg, Lawrence	Va.
Ginsberg, William Kellner	D.C.	Gochnour, Marion Quee	Va.
Ginsburg, Harry	Md.	Gochnour, Ray Francis	D.C.
Ginsburg, Manny	D.C.	Gocke, Thomas Lenis	D.C.
Ginsburg, Naomi Ruth	D.C.	Goda, Shirley Grace	D.C.
Giraldi, Almerigo	D.C.	Godbey, Gloria Swanson	
Girardi, Gloria Evelyn	D.C.	A.B. 1949, The George Washington University	
B.S. 1944, Wilson Teachers College		Godbey, Leon, Jr.	D.C.
Giroux, Estelle Eva-Pearl	Mass.	Goddard, Chester Lee	Ohio
Girton, Dale Rhoads	D.C.	Goddard, Donald Sidney	D.C.
Giser, Harold Walter	Va.	A.B. 1947, Wilson Teachers College	
Gittelman, Elinor Ann	N.J.	Goddard, William	D.C.
Gittinger, Hugh Victor, Jr.	Md.	B.S. 1949, College of the City of New York	Belgium
Gittings, Thomas Morton, Jr.	Md.	Godeaux, Jean Clement	Alaska
Giusti, Natalie	Mass.	LL.D. 1944, University of Louvain	
Given, Charles Elmer	Kans.	Goding, Maurice Wilfred	
Givort, Martin Lionel	D.C.	A.B. 1933, Yankton College	Va.
Gjupanovic, Fran	D.C.	Godsey, Gladys Grandy	
LL.D. 1922, Zagreb University, Yugoslavia		B.S. 1942, Radford College	Ind.
Glaser, Marvin	D.C.	Godwin, Margaret Eaton	D.C.
Glaser, Stanley	N.Y.	Goemaat, Edward John	Iowa
Glasgow, Richard Ellsworth	D.C.	Goesser, Joseph Nicholas	Va.
A.B. 1948, Bradley University		Goetz, Charles Major	Mass.
Glass, Norman Pilmer	D.C.	Goewey, Bruce Anderson	
A.B. 1937, LL.B. 1941, Oklahoma City University		A.B. 1942, Colgate University	D.C.
Glassberg, Lee	D.C.	Goffe, Janis Elizabeth	Va.
Glassman, Gerald John	N.J.	Goforth, George Tuttle	N.J.
Glatstein, Irwin Lee	D.C.	Goglin, Henry Waldo	Md.
B.S. 1939, M.A. 1940, University of Missouri		Gohn, George Milton	Ind.
Glazer, Harry Bernard	D.C.	Gold, Frieda Yetta	
Gleason, Donald Hastings	D.C.	A.B. 1941, Indiana University	D.C.
Gleason, Frederick James, Jr.	D.C.	Goldbaum, Annette Davis	D.C.
Gleason, Georgette Elizabeth	N.Y.	Goldbaum, Leo Robert	
		B.S. 1934, Brooklyn College	
		M.S. 1938, New York University	



Goldberg, Aaron	N.Y.	Goldstein, Sidney Emanuel	Md.
A.B. 1939, Brooklyn College		Goldsum, John F., Jr.	Tex.
Goldberg, Bernard	D.C.	Golin, Gerald	D.C.
Goldberg, Charles Hurbert	D.C.	Golis, Joseph Francis	D.C.
Goldberg, Fred	N.J.	Golladay, Grace Marie	Ill.
Goldberg, Irving	N.J.	Golovin, Nicholas E.	D.C.
A.B. 1948, The George Washington University		A.B. 1933, A.M. 1936, Columbia University	
Goldberg, Jack	D.C.	Golovin, Theresa Paula	Md.
Goldberg, Jerome Gershon	Pa.	Goltz, Bernard Kenneth	N.Y.
Goldberg, Marvin Irwin	D.C.	B.S. 1941, M.S. in Ed. 1942, College of the City of New York	
B.S. Murrey David	Md.	Gomersall, Gwenneth Mary	D.C.
B.S. 1949, University of Maryland		Gomez, Geraldine Rose	D.C.
Goldberg, Seymour	D.C.	Gomez-Disdier, Rafael M.	Puerto Rico
A.B. 1948, University of Virginia		Gonda, Helen Suzanne	Pa.
Goldblatt, Hyman	D.C.	Gongwer, Betty	Ind.
Golden, John Richard	D.C.	A.B. 1943, Manchester College	
Golden, Julian Edwin	D.C.	Gooch, Penny Ray	Va.
Goldenberg, Jacqueline Rose	D.C.	B.S. 1949, Catholic University of America	
Goldenberg, Jerome Albert	Va.	Good, Elizabeth Sarah	Md.
Goldenberg, Melvin Myron	D.C.	Good, Gloria Juanita	Va.
B.M.E. 1949, Catholic University of America		Good, Norman, Leese	D.C.
Goldenberg, Pearl	D.C.	Good, William Horsley	D.C.
Goldenberg, Solomon Alcono	D.C.	Goode, William Ely	Mass.
Goldenthal, Edwin Ira	D.C.	Gooding, Arthur Raymond, Jr.	Va.
Goldner, Jacob Victor	D.C.	Goodman, Clifford James	Ariz.
A.B. 1939, A.M. 1940, Boston University		B.S. 1947, The George Washington University	
Goldfarb, Louise Marilyn	D.C.	Goodman, Leonard Irwin	Va.
Goldman, Albert L.	N.Y.	Goodman, Marie Cleckner	D.C.
Goldman, Alfred Merton	D.C.	A.B. 1945, College of Notre Dame of Maryland	
Goldman, Gerald Jack	Va.	B.S.L.S. 1947, Western Reserve University	
Goldman, Harry	D.C.	Goodman, Sanford Gerald	N.Y.
Goldman, Harry	D.C.	Goodman, Thomas A.	D.C.
Goldman, Richard Graybell	D.C.	B.S. 1937, New York State College for Teachers, Buffalo	
B.S. 1948, Massachusetts Institute of Technology		A.M. 1939, Columbia University	
Goldman, Samuel Zachary	D.C.	Goodnight, Lyman Evans, Jr.	Md.
A.B. 1949, The George Washington University		Goodrich, Bernard Arthur	D.C.
Goldman, Sherman H.	Mass.	Goodrich, Edward Laros	Calif.
B.S. in M.E. 1948, Northeastern University		Goodrich, Nina Mae	Va.
Goldman, Thomas Adler	D.C.	B.S. 1946, Madison College	
A.B. 1939, Harvard University		Goodrich, Ray Wilkes, Jr.	N.C.
Goldsand, Ronald Howard	N.Y.	B.S. 1948, University of North Carolina	
Goldsborough, George Joseph, Jr.	Md.	Goodsaid, Alan	Md.
B.S. 1947, United States Military Academy		Goodsaid, George Herman	D.C.
Goldsmith, Betsey	N.J.	Goodwin, Jack Warren	D.C.
Goldsmith, Marcia Wolf	D.C.	B.S.E.E. 1947, Tri-State College	
Goldsmith, Theodore Harold	D.C.	Goodwin, Joseph Daniel	D.C.
Goldstein, Benjamin	D.C.	Goodwin, Paul Russell	Va.
B.S.S. 1931, M.B.A. 1932, College of the City of New York		B.S. 1931, University of Maine	
Goldstein, Daniel	Md.	Goodwin, Robert Joseph	Calif.
B.S. 1948, University of Baltimore		A.B. 1949, The George Washington University	
Goldstein, David Carl	N.Y.	Goold, Louise Stewart	D.C.
B.S. 1949, New York University		Goosh, Walter Erwin	D.C.
Goldstein, Esther	D.C.	Goranson, Rolf Fabian	Wash.
Goldstein, Howard Samuel	N.Y.	B.S. in A.E. 1940, University of Washington	
B.S. 1948, Roanoke College		Gray, Stanley Joseph	N.Y.
Goldstein, Jack Mark	D.C.	Gordon, Albert	Va.
Goldstein, Jerome Stanley	Md.	B.M.E. 1944, College of the City of New York	
Goldstein, June Ruth	D.C.	Gordon, Alexander Rola	D.C.
Goldstein, Leon George	N.J.	Gordon, Alexander Wayne, Jr.	Pa.
A.B. 1946, A.M. 1949, University of Pennsylvania		A.B. 1949, Allegheny College	
Goldstein, Lloyd Melvin	D.C.	Gordon, Andrew Fraser	N.Y.
D.D.S. 1947, Georgetown University		Gordon, Arlene	D.C.
Goldstein, Raymond Norman	D.C.		
Goldstein, Robert Bernard	N.Y.		



Gordon, Charlotte Ann	D.C.	Gottlieb, Marvin Irving	N.Y.
Gordon, David Hugh	Va.	A.B. 1947, New York University	
Gordon, Eva Elaine	Va.	M.S. 1949, The George Washington University	
Gordon, Forest	D.C.		
Gordon, Francis Guthrie, Jr.	Va.	Gottscho, Marie Helene	D.C.
Gordon, Fulton Ray, Jr.	D.C.	Gottshall, William Holt	D.C.
Gordon, Gladys Bradley	Miss.	A.B. 1948, Allegheny College	
A.B. 1943, University of Mississippi		Gougé, Susan Cornelia	D.C.
Gordon, Harold	D.C.	B.S. 1948, The George Washington University	
Gordon, Harold Raymond	Conn.	Gould, George Marvin	Md.
B.S. 1948, Teachers College of Connecticut		Gould, Stanley Benton	Md.
Gordon, Herbert Stephan	Ind.	B.S. 1949, Haverford College	
A.B. 1947, Indiana University		Gould, Warren	D.C.
Gordon, Howard Leo	D.C.	Goulden, Herbert Edward	Pa.
B.S. 1948, Georgetown University		Goulden, Paul Vincent	Md.
Gordon, James Kirke	Va.	B.S. in Ed. 1936, Mount St. Mary's College	
A.B. 1949, The George Washington University		Gourley, Evelyn Mae	Ill.
Gordon, Lester Howard	Mass.	M.B.A. 1948, University of Denver	
Gordon, Mary Jo	N.Y.	Ed.B., Illinois State Normal University	Pa.
Gordon, Robert Norman	D.C.	Gourley, Roy George	
A.B. 1948, University of Buffalo		B.S. 1948, University of Alabama	Pa.
Gordon, Ruby Nell	Tenn.	Govan, Colin M.	Mich.
Gordon, Thomas Cooper	Va.	Govan, Francis Anthony	Ill.
A.B. 1949, The George Washington University		Grabiner, Herbert Samuel	D.C.
Gordon, Wayne, Jr.	Pa.	Grabowski Alice June	Ill.
A.B. 1949, Allegheny College		Grabowski, Edwin F.	
Gordon, Woodrow Wilson	Va.	A.B. 1947, The George Washington University	
A.B. 1935, Randolph-Macon College		Grady, Joseph William	R.I.
Gore, John William	W.Va.	Grady, Marcia Anne	D.C.
A.B. 1947, Shepherd College		Grady, Thomas Burton	D.C.
Gore, Mary Augusta	D.C.	Graef, Dorothy A.	N.Y.
Gore, Thomas Jackson, Jr.	Va.	Graf, Alfred Geza	Pa.
Gore, William Frederick	D.C.	Graf, Wendell Eugene	Pa.
Goren, Howard J.	Md.	Grafius, Melba Agnes	
Goretzka, Edward Cloman	Pa.	B.S. 1942, Temple University	
B.S. 1948, Muhlenberg College		M.S. 1948, University of Maryland	D.C.
Gorham, Frank Cornelius	Va.	Gragan, Philip Arthur	Va.
Gorham, Pauline Callender	Va.	Graham, Champe Carter	Pa.
B.S. 1927, Madison College		Graham, Edward Regis	
A.M. 1928, Columbia University		B.S. in Ed. 1941, California State Teachers College, Pa.	Fla.
Gorman, Frank John	Ohio	Graham, Herbert McCarty	Va.
Ph.B. 1943, John Carroll University		Graham, Sylvia Malcolm	
LL.B. 1946, Western Reserve University		A.B. 1947, Randolph-Macon Woman's College	D.C.
Gorman, Robert Elmer	Md.	Graham, William Griffith	
Gorman, Thomas A., Jr.	Va.	B.S. 1946, United States Naval Academy	Va.
Gorman, Thomas Richard	Ill.	Graham, William Montrose	
A.B. 1949, University of Notre Dame		A.B. 1949, University of Virginia	Va.
Gorman, Vincent A.	N.Y.	Graim, Richard Joseph	D.C.
LL.B. 1948, St. John's University New York		Grainger, Ann	N.Y.
Gormley, Robert Joseph	N.Y.	Gralnick, Paul Philip	
A.B. 1947, Michigan State College		A.B. 1939, Brooklyn College	Ill.
Gorrell, Richard Lee	Va.	Gramann, Robert George	Ind.
Gorrie, Jack Osborne, Jr.	N.J.	Grams, Ralph Richard	Ala.
Gorin, Gerald Malvin	N.Y.	Granberry, William Alquin	
Gorschman, Marilyn	N.J.	B.I.E. 1949, Georgia Institute of Technology	W.Va.
Gorski, Regina Stella	Va.	Grandstaff, Alma Fern	
Goshorn, Alfred Franklin	D.C.	A.B. 1948, Shepherd College	D.C.
Goshorn, Gustava Mabel	W.Va.	Granger, Louis Robert	N.J.
Gosnell, Arthur Lewis	Md.	Granger, Patricia Laura	Va.
Gossage, Wade Lionel	Mo.	Grano, Mario	D.C.
A.B. 1949, William Jewell College		Grant, Blaine Dodds	N.Y.
Gotobed, Kenneth Samuel	Nebr.	Grant, Leonard J.	Md.
Gotschall, Gale Parkison	Nebr.	Grant, Mary Fair	N.J.
LL.B. 1941, Washington College of Law		Grant, Orland Wolcott	D.C.
A.B. 1949, The George Washington University		Grant, Ralph Gilbert	
Gottesman, Alexander Morey	Va.		



Grantham, Emery Arden	Tex.	Green, Harold Arnold	D.C.
B.S. 1937, United States Naval Academy		Green, Harold Hoadly, Jr.	Ohio
M.S. 1941, Massachusetts Institute of Technology		B.S. in E.E. 1947, B.N. S.T. 1947, Purdue University	
Grantham, Rodney Elliott	Md.	Green, Harry Brown	Va.
B.S. in E.E. 1942, Purdue University		Green, Hugh Harrison	Va.
Granville, John Matthew	Md.	Green, Jack Allen	D.C.
B.S. 1932, Cornell University		Green, James Charles	Va.
Grasser, Emil Ernst, Jr.	Pa.	Green, Jess Downing, Jr.	Va.
Grassmyer, Georgia Anne	Pa.	A.B. 1944, University of Kansas City	
Grasso, Michael	N.J.	Green, John Clarence	Va.
B.S. 1946, Bucknell University		Green, Mabel Hernan	N.Y.
Grathouse, Virginia Louise	Md.	Green, Margaret Shelor	Va.
Grauer, Oscar Haskel	D.C.	A.B. 1939, Radford College	
Grauman, Fanny Ruth	N.Y.	Green, Mary Nancy	Va.
Graumann, Teresa Ann	Md.	A.B. 1943, Agnes Scott College	
Gravatte, Robert Howerton, Jr.	D.C.	Green, Norman	N.Y.
A.B. 1943, L.L.B. 1947, University of Virginia		Green, Patrick	Md.
Graves, Doris Marcella	Md.	B.S. in M.E. 1948, Lehigh University	
Graves, John Rufus	D.C.	Green, Priscilla Thayer	D.C.
Graves, Joseph Basil	D.C.	Green, Robert A.	Mass.
Graves, Theodore Keith	Iowa	A.B. 1942, Clark University	
Graves, Walter Albert	D.C.	B.S.E. 1948, University of Michigan	
A.B. 1941, A.M. 1942, Syracuse University		Green, Robert Henry	Md.
Gravitt, Dwight Lee	Va.	Green, Robert William	Va.
A.B. 1948, The George Washington University		Green, Samuel	D.C.
Gravitz, Melvin A.	D.C.	A.B. 1948, George Washington University	
Gray, Beatrice Mason	D.C.	Green, Shirley Sprott	Va.
A.B. 1922, University of Michigan		Green, Stanley Keith	Calif.
Gray, Bill Lawrence	Kans.	Green, Willard Arthur	D.C.
Gray, Daniel William	Mass.	Green, William Oliver, Jr.	D.C.
Gray, Frederick Charles, Jr.	Ariz.	A.B. 1949, The George Washington University	
Gray, George Howard	D.C.	Greenbaum, Hilda Joan	D.C.
Gray, James Cecil	D.C.	Greenberg, Alfred Henry	D.C.
B.S. 1936, United States Naval Academy	Mich.	Greenberg, Bernard	Mass.
Gray, John Allan, Jr.	N.J.	A.B. 1948, University of Massachusetts	
B.S. 1949, Pennsylvania State College		Greenberg, Bernard Louis	D.C.
Gray, Kenneth Marvin	Md.	A.B. 1941, Oberlin College	
Gray, Lawrence James	Va.	Greenberg, Bertram	D.C.
Gray, Phyllis Dunsmore Smith	D.C.	Greenberg, David, L.	Mass.
Ph.B. 1926, Brown University		Greenberg, Lillian	Md.
Gray, Robert John	N.J.	A.B. 1940, Brooklyn College	
Graybeal, John Olin	Wash.	Greenberg, Marvin Paul	D.C.
B.S. 1943, College of Puget Sound		Greenberg, Miriam Jean	Md.
Grayson, Howard Avory	D.C.	B.S. 1949, University of Maryland	
Grayson, Sibel Doris	Va.	Greenberg, Phyllis Sandra	D.C.
Greaver, Vernon Elmer	D.C.	Greenberg, Sidney	Mass.
Greaves, Keith Carpenter	Idaho	B.S. 1940, University of Massachusetts	
B.S. 1941, University of Idaho		Greene, Alexander Jacques	D.C.
Greco, Jacqueline Pauline	Pa.	B.S. 1947, College of the City of New York	
B.S. 1945, St. Joseph's College, Md.		Greene, Carrie Lee	D.C.
Greco, Mary Annunciatta	Tex.	Greene, David F.	N.Y.
Greeley, Lillie Lee	Md.	Greene, Edward Allen	D.C.
Green, Allen Jones	Va.	Greene, Edward Hickman	La.
B.S. 1945, Wilson Teachers College	D.C.	Greene, Harold H.	D.C.
Green, Arleigh William	Md.	Greene, Jesse Lester	Va.
Green, Betty MacMillan	Miss.	Greene, John Derwood	La.
A.B. 1941, Meredith College		A.B. 1938, Louisiana Polytechnic Institute	
Green, Charles Yancey, Jr.	D.C.	A.M. 1941, Louisiana State University	
Green, Edward Harrison	N.J.	Greene, Katherine Virginia	Va.
Green, Enid Caldwell	S.C.	A.B. 1947, Eastern Nazarene College	
Green, Fern	D.C.	A.M. 1948, The George Washington University	
B.S. 1940, Texas Technological College		Greene, Nita Eugenia	S.C.
Green, George Hamilton	N.J.	B.S. 1941, Catholic University of America	
B.S. in Ed. 1949, Temple University		Greene, Robert Edward, Jr.	Md.
Green, Gerald	Pa.	B.S. in M.E. 1942, University of Maryland	
Green, Gloria Esme	D.C.	Greene, Robert Ellis	Ind.



Greene, Walter Scott III	D.C.	Grewal, Rajwant Kaur	India
B.S. 1929, Syracuse University		A.B. 1942, Nagpur University, India	D.C.
Greenfield, Julius William	N.Y.	Grey, James Preston	Va.
Greenfield, Ralph Benedict	Md.	Grey, Leo	D.C.
A.B. 1935, University of Chicago		Grey, William Jackson	
Greenhalge, Frederic Thomas	N.H.	B.S. 1949, University of Maryland	Tenn.
A.B. 1945, Harvard University		Grider, John McGavock	
Greenhouse, Samuel W.	N.Y.	B.S. 1932, United States Naval Academy	
B.S. 1938, College of the City of New York		M.S. 1941, Harvard University	D.C.
Greenman, Geoffrey David	N.Y.	Gridley, Cecil John, Jr.	Mich.
Greenman, Maurice Morton	D.C.	Gridley, Lily Hutcheon	D.C.
B.S. 1948, Wilson Teachers College		Grier, Harold Thomas	Md.
Greenough, William II	D.C.	Griffee, Virginia Walters	D.C.
Greenslade, John Wills	D.C.	Griffin, Charmian	
Greenspan, Louis	N.Y.	A.B. 1949, University of North Carolina	D.C.
A.B. 1941, New York State College for Teachers, Albany		Griffin, Faye S.	Va.
Greenstein, Paul Samuel	D.C.	Griffin, James Edward	Nebr.
Greenville, George Walker	Md.	Griffin, Leonard Lee	Va.
Greenwald, Charlis Smason	Tex.	Griffin, Linton Larkin	D.C.
A.B. 1949, The George Washington University		Griffin, Mary Kennedy	N.C.
Greenwald, Norman David	Mass.	Griffin, Thomas William, Jr.	Md.
Greenwald, Robert Frederick	Tex.	Griffin, William Earl	D.C.
Greenwood, Gayle Marianne	D.C.	Griffin, William Elisha	D.C.
Greenwood, Nancy Lee	Va.	Griffin, William Joseph	D.C.
Greenwood, Russell G.	Md.	Griffing, Willard Earl	N.Y.
Greenzaid, Judah	D.C.	Griffith, Eugene Everett	Tenn.
Greer, Irene Elizabeth	Va.	A.B. 1928, The George Washington University	
Greer, Reagan Henninger	Tex.	A.M. 1938, Columbia University	Va.
Greer, Robert Emerson, Jr.	D.C.	Griffith, Frederick Phillip, Jr.	W.Va.
Greer, Thomas J., Jr.	Tex.	Griffith, Richard Darrel	Va.
Gregg, James Calvin	Pa.	Griffith, Robert John	
Gregg, Mary Alice	Wis.	A.B. 1938, L.L.B. 1941, Syracuse University	Tenn.
B.S. 1940, University of Wisconsin		Griffith, Ruby Elizabeth	Canada
Gregoric, Florence Irene	D.C.	Griffith, Shirley Ann	Minn.
B.S. 1945, Michigan State College		Griffith, Thomas John	
Gregory, Betty Gene	Iowa	B.S. 1949, Michigan College of Mining and Technology	Pa.
Gregory, Edward Meeks	Va.	Griffith, William Frederick	Va.
A.B. 1947, University of Virginia		Griffiths, Mary Cecelia	Va.
Gregory, Estella H.	D.C.	Griffitts, Joseph Lewis	
A.B. 1929, College of Wooster		B.S. 1941, Northwestern State College	Okla.
A.M. 1949, The George Washington University		Griffitts, Muriel Elaine	D.C.
Gregory, Hugh Elroy	Md.	Grigg, Robert Dinwiddie III	Ohio
Gregory, Jane Brown	D.C.	Grimani, Fred Joseph	Va.
B.S. 1941, Pennsylvania State College		Grimes, John Francis	N.Y.
Gregory, Phyllis Jeanne	D.C.	Grimes, Robert Henry	N.Y.
Gregory, Richard Hugh	D.C.	Grimes, Willard M., Jr.	
Greig, Leslie Mac Lachlan	Ill.	B.S. 1940, Wagner Memorial Lutheran College	N.Y.
B.S. 1945, United States Coast Guard Academy		Grimm, Robert John	Idaho
Greiner, Edwin	N.Y.	Grimmett, Talmage Pomeroy	D.C.
B.S. 1949, College of the City of New York		Grimwood, Gordon B.	
Greisman, Jack	D.C.	A.B. 1948, The George Washington University	D.C.
Greisman, Sol M.	Md.	Grindle, George Joseph	
Grekila, Richard B.	Ohio	B.S. 1942, L.L.B. 1949, Harvard University	Mass.
B.S. 1949, Ohio University		Grinnell, John Robert	Colo.
Grenadier, Albert Harold	Va.	Grisham, Ethel Marguerite	D.C.
A.B. 1949, The George Washington University		Grisso, Paul Bennett, Jr.	
Grenan, Marie Margaret	D.C.	B.S. 1949, Iowa State College of Agriculture and Mechanic Arts	D.C.
Grenfell, Elizabeth Magdalena	Md.	Gritz, Alexander	D.C.
Grenier, Thomas James	Md.	Gritz, Olga Maria	D.C.
Gresser, Seymour Gerald	Md.	Grivas, Spiro James	Va.
B.S. 1949, University of Maryland		Groah, William Jennings	D.C.
Greteman, Genevieve Mary	Iowa	Grob, Victor Edward	N.J.
Greve, Marie Zeplin	Nebr.	Grobman, William	
Greville, Thomas Nall Eden	D.C.	B.S. in E.E. 1944, Rutgers University	N.Y.
A.B. 1930, University of the South		Grodin, Herbert	
A.M. 1932, Ph.D. 1933, University of Michigan			



Grodsky, James Wilbur B.S. 1943, Georgia Institute of Technology	D.C.	Gulko, Arnold George B.Ch.E. 1947, New York University	Va.
Groening, Ralph Edward	D.C.	Gump, Lyndon Jay	Md.
Groettum, Theodore Roger	D.C.	Gunn, Frederick Allen	Va.
Grogan, John Barry A.B. 1948, The George Washington University	Va.	Gunner, Charles Anthony	N.J.
Gronset, Eilif Hans Hogh	Norway	Gunther, Arthur C., Jr.	Ky.
Groom, Carol Celeste A.B. 1948, Municipal University of Wichita	Va.	Gunther, Patricia Ann	D.C.
Grosedclose, Louise V. Burrus	Va.	Gunther, Robert M.	Minn.
Gross, Donald Lee	Pa.	Gustafson, Harris Finley	Pa.
Gross, John, Jr.	Md.	Gustafson, John Richard, Jr.	Va.
Gross, Robert Victor A.B. 1949, University of Tampa	Pa.	Gustafson, Melbourne	
Grosse-Lohmann, Ralph	Md.	A.B. 1938, Augustana College and Theological Seminary	D.C.
Grove, Jesse Barrett, Jr. B.S. in Ch.E. 1939, Virginia Polytechnic Institute	Va.	Guthery, Upton Keller	Md.
Grover, Roy Lee	Md.	Guthrie, David Veatch	Md.
Groves, Gerald Richard	Va.	B.S. 1949, University of Maryland	Md.
Groves, Stanley Corley	D.C.	Guthrie, Eugene Harding	Mass.
Grubb, Edna Stutler	D.C.	Guthrie, William Joseph, Jr.	D.C.
Grubb, Stephen	Nebr.	Gutman, Dalia	Va.
Grubbs, Beryl Louise	Pa.	Gutridge, John Everette, Jr.	N.J.
Grubbs, Violet Davis	D.C.	Gutt, Robert Leonard	Va.
Grubic, Eli A.B. 1939, LL.B. 1939, LL.M. 1948, The George Washington University	Nev.	Gutterman, Harriett	D.C.
Grundyke, Richard Nelson	Fla.	Guy, John Philip	Md.
Gruff, James John	Va.	Guy, Leroy Stanley	Ill.
Grumbly, Richard Francis	Va.	Guymon, Roy	D.C.
Grumling, Albert John	D.C.	Gwynn, Norman Ray	D.C.
Grumberg, Maurice	D.C.	Gwynn, Theodore Roosevelt	Ark.
Grundmann, William Joseph	Calif.	Gwozdz, Jozef	Poland
Grundstein, Nathan David Ph.D. 1943, Syracuse University	Mich.	LL.B. 1939, Poznan University Magister Juris, 1944, Oxford University England	
Grunfelder, Conrad, Jr.	Md.	Gwynn, John Alfred	Md.
Grunsten, Russell Carl	Fla.	Gwynn, Thomas Summers, Jr.	Md.
Grunwald, Norbert L. B.S. 1949, Johns Hopkins University	D.C.	A.M. 1938, University of Maryland	
Gruszczenski, Edward Joseph	D.C.	H	
Gruver, Donald Robert	D.C.	Haack, Clifford William	Va.
Gruver, Richard Ralph	D.C.	Haag, Joan Irene	Md.
Gruver, William John B.S. 1938, Pennsylvania State College	Md.	Haapanen, Ethel Phyllis	Mass.
Gschwind, Elsie M.	D.C.	Haas, Andrew Leo B.S. 1913, United States Naval Academy	D.C.
Gude, Gilbert	Md.	Haas, Dana Marie	Minn.
Gudgen, Royal Wheeler, Jr.	Fla.	Haas, Edward William	
Guell, Loren James H.	Wis.	A.B. 1936, College of St. Thomas	Md.
Guerin, Bernard K. B.S. 1944, Louisiana State University	Md.	Haas, Gladys Margaret	D.C.
M.S. 1946, The George Washington University		Haas, William Irvan	Pa.
Guerra, Serafim Lawrence	Mass.	Haase, Herta	D.C.
Guerrero, Manuel Antonio	D.C.	Haase, Wilbert George	Nebr.
Guerrero-Suarez, Margarita	D.C.	Haber, Georges	D.C.
Guilford, Martha Chapman A.B. 1945, Alabama College	D.C.	A.B. 1949, New York University	
Guimond, Joseph Alexandre A.B. 1931, LL.B. 1933, Western Reserve University	Ohio	Haberman, David Isadore	D.C.
Guinan, Warren Alonzo A.B. 1943, University of Nebraska	Nebr.	Hack, Robert James	D.C.
Guinivan, Ora Jane A.B. 1947, Dickinson College	Pa.	Hackl, Muriel Forster	Md.
Gulbrandson, Helen Reid A.B. 1938, The George Washington University	D.C.	Hackman, Lilian Pauline	D.C.
Gulick, Richard Green	Va.	Hackney, Charles William, Jr.	N.C.
		Hackney, Mabel Patra	D.C.
		A.B. 1932, Morehead State College	D.C.
		Hackworth, Gloria	W.Va.
		Hackaylo, Edward	
		A.B. 1949, The George Washington University	D.C.
		Haddad, Adele Sylvia	
		A.B. 1949, The George Washington University	
		Haddon, Anna Elisabeth	Maine
		Haddox, Blaine Morray	Va.
		Haddox, Dallas Deryl	Va.
		Hadley, Frank	Mass.
		A.B. 1949, New York University	



Hadley, Harry Irving	Wis.	Hall, Allan	N.J.
B.S. 1939, State College, Superior, Wis.		A.B. 1949, The George Washington University	
A.M. 1940, University of Minnesota		Hall, Charles Llewellyn	Md.
Hadley, Herschel Nixon	D.C.	Hall, Daniel Curtis	D.C.
A.B. 1939, Whitman College		Hall, E. Juanita	Ark.
Hadlock, Robert Lewis	D.C.	Hall, Ernest Howard	D.C.
Haefs, Richard Alan	D.C.	Hall, Helen Patricia	N.J.
Haeger, Henry	N.Y.	Hall, Iva Merle	W.Va.
B.S. 1948, Georgetown University		Hall, James Aldrich	Va.
Hagan, John Joseph	Conn.	Hall, James Granville, Jr.	Pa.
B.S. 1943, Fordham University		Hall, James Herrick	D.C.
LL.B. 1949, Georgetown University		A.B. 1947, Baylor University	
Hagan, Joseph Francis	Va.	A.M. 1948, The George Washington University	
Hagan, Theresa Alice	Md.	Hall, James Raymond	Md.
Hagan, Thomas Francis	D.C.	Hall, Janie Rosselle	D.C.
Hage, Louis Richard	N.Y.	Hall, John Edward	Iowa
Hagedorn, Robert Lee	Md.	Hall, John William	Md.
Hageman, Charlotte Suydam	Iowa	B.S. 1931, Gettysburg College	D.C.
A.B. 1926, Vassar College		Hall, Jonathan	
A.M. 1928, Radcliffe College		A.B. 1935, Rollins College	
Hagen, William August, Jr.	Ohio	A.M. 1938, Gallaudet College	D.C.
A.B. 1948, Hiram College		Hall, Joseph Alexander, Jr.	W.Va.
Hager, Eileen Mae	D.C.	Hall, Joseph Earl	
Hager, Florence Betty	D.C.	A.B. 1949, Marshall College	D.C.
Hager, Robert Edwin	Va.	Hall, Julianne	D.C.
A.B. 1950, West Virginia University		Hall, Lilburn Eugene	D.C.
Haggart, Jane	D.C.	Hall, Lou Ann	D.C.
Haggemaker, Thomas George	Va.	Hall, Marshall Carter, Jr.	
Haggerty, John Aloysius, Jr.	Va.	A.B. 1943, Williams College	D.C.
Haggerty, Kathryn Stewart	Ohio	Hall, Mary Viola	Va.
Hagle, Alfred Darius	Okla.	Hall, Mervin Gatewood	N.C.
A.B. in Ed. 1947, Central State College		Hall, Nathan Gray	W.Va.
Haglund, R. Conrad	Iowa	Hall, Patricia Louise	Md.
B.S. 1949, American University		Hall, Robert Jenkins	D.C.
Hagman, Dawn	Mass.	Hall, Virginia Sybil	Va.
Hahn, Agnes Peacock	Va.	Hall, William Henderson	Fla.
A.B. 1926, College of William and Mary		Hallberg, Ernest Van, Jr.	
Hahn, Paul Davisson	Va.	A.B. 1942, University of Florida	N.Y.
B.S. 1934, Indiana State Teachers College		Halleran, Bernard	Tex.
A.M. 1938, The George Washington University		Hallett, Nez Conrad, Jr.	
Haidt, Harold	N.Y.	A.B. 1939, University of Texas	Md.
B.S. in Ch.E. 1947, Purdue University		Halley, Frances Jean	Pa.
Haight, Donald James	Va.	Hallman, Clarence Kenneth	Va.
Haigley, Leo Joseph	Va.	Hallman, Pauline Pearl	Colo.
Haile, Amelia Kolk	Va.	Hallquist, Norman Jerome	N.Y.
B.S. 1939, Johns Hopkins University		Halperin, Murray	N.Y.
Hailey, Lyman Griffith	Va.	Halpern, Esther	Md.
Hair, Margaret Louise	Pa.	Halpern, Louis Harrington	N.Y.
B.S. 1947, Mary Washington College		Halvatzis, George	Va.
Hair, Maurice Etheredge	S.C.	Halverson, LeRoy Thomas	Ga.
Hakim, George John	Lebanon	Ham, Mary Sanford	
A.B. 1932, A.M. 1934, American University of Beirut		B.S. 1949, Georgia State College for Women	D.C.
Lice.D. 1937, St. Joseph University, Beirut		Ham, Richard Digby	D.C.
Halak, Eleanor B.	N.J.	Hamann, Charles Waverly	D.C.
Halchak, Joseph	Pa.	Hamasian, Reuben	Tenn.
Hale, Roger Curtis	D.C.	Hamblen, Dana Harmon	D.C.
Halebian, Garabed Newton	N.Y.	Hamby, Alice Walters	
Halen, John Thomas	Va.	A.B. 1943, Transylvania College	Ky.
A.B. 1949, Brooklyn College		Hamby, John Gordon	
LL.B. 1949, St. John's College, New York		B.S. in M.E. 1947, University of Kentucky	Va.
Haley, Herbert Otis	Va.	Hamilton, Clifford C.	Va.
Haley, Louis Albin	Va.	Hamilton, Edwin Earl	Va.
Haley, Peter John	Va.	Hamilton, Grace Anton	N.Y.
Haley, Violet Lowry	Va.	Hamilton, Howard Pinner	D.C.
Halish, Walter George	Conn.	Hamilton, Jack Hobert	
A.B. 1949, The George Washington University		Hamilton, Lloyd William	
		A.B. 1948, The George Washington University	Ohio
		Hamilton, Robert Eugene	
		B.S. in E.E. 1948, Ohio University	



Hamilton, Samuel Graham	Mass.	Hanken, Raymond George	Va.
Hamilton, Sanborn	D.C.	B.S. 1938, The George Washington University	
Hamler, Dollie Ruby	Iowa	Hankes, Wilbur Ray	D.C.
A.B. 1949, The George Washington University		B.S. in M.E. 1942, Case Institute of Technology	
Hamlin, Alan Holden	Fla.	Hanks, Sarah	D.C.
Hamlin, Emil	Fla.	A.B. 1943, Southwestern Louisiana Institute	
Hammar, Helen Vera	Ill.	Hanley, Charles	N.Y.
B.S. 1949, Illinois Institute of Technology		Hanmer, Frank Joseph	N.Y.
Hammarstrom, Everett John	Mass.	B.S. 1938, New York University	
A.B. 1947, Clark University		A.M. 1939, Columbia University	
Hammel, Berner George	N.J.	Hann, Mary P.	D.C.
Hammer, David Edwin	Ill.	A.B. 1944, College of St. Francis	
A.B. 1949, The George Washington University		Hanna, Jane Edwards	D.C.
Hammer, Thomas Frederick	Ind.	Hanna, William Eugene	Va.
Hammerly, Amelia Diedrich	Va.	A.B. 1947, Bradley University	
Hammerman, Eunice Suzanne	D.C.	Hannaford, Jerome Bruce	Wash.
Hammerla, Nancy Jane	D.C.	Hannon, John Vincent	N.Y.
A.B. 1948, The George Washington University		Hannoosh, Raymond Thomas	Mass.
Hammett, Thomas Francis	D.C.	A.B. 1935, Dartmouth College	
Hammill, Francis Raymond, Jr.	N.Y.	Hanrahan, Donald Joseph	N.Y.
A.B. 1948, University of Rochester		Hanrahan, Doreen O'Claire	Va.
Hammond, Bette Lea	Pa.	Hansbarger, William Henry	Va.
Hammond, Charles Sterling	Md.	A.B. 1947, University of Maryland	
Hammond, Harry Krewson III	Pa.	Hanscom, Marvel Mary	Maine
B.S. 1938, Lehigh University		Hansel, Roger Elmer	D.C.
Hammond, Kenneth Fabian	D.C.	Hansen, Margaret Carolina	D.C.
Hammond, Mary Evelyn Kent	D.C.	Hansen, Martin Edward	Calif.
Hammons, Att Wingfield, Jr.	Miss.	Hansen, Melvin Robert	Nebr.
Hamon, William	Pa.	Hansen, Walter Daniel	D.C.
Hampton, Curnel Sidney	Va.	Hanson, Henry Jr.	Conn.
A.B. 1932, Michigan State College		A.B. 1940, Wesleyan University	
Hampton, James Taylor	Mo.	A.M. 1941, Harvard University	
Hampton, Raymond Merritt	Md.	Hanson, Jean Lavonne	Wis.
Hanan, Robert	D.C.	Hanson, Lola Marguerite	Wis.
B.S. 1943, Louisiana State University		Hanson, Murray	Md.
M.D. 1947, Tulane University		B.S. 1933, United States Naval Academy	
Hanbury, Jillian	D.C.	Hanst, Philip Lincoln	Md.
Hanby, Barbara Louise	Md.	Hanyok, Andrew	Pa.
A.B. 1948, The George Washington University		Hanyok, Joseph	Md.
Hanby, Carolyn Elizabeth	Md.	Hanyok, Stephen	Pa.
Hance, Edward	Fla.	Happick, Richard Jay	N.Y.
B.S. 1946, University of South Carolina		B.M.E. 1948, Syracuse University	
Hanchak, Madeline Hutchinson	Ohio	Haran, Hilda Gay	Ala.
Hancock, John Harrison	Va.	Harbaugh, George Harold	D.C.
A.B. 1938, Hampden-Sydney College		A.B. 1948, Rutgers University	
Hancock, Katharine I.	Calif.	Harbaugh, Marian Page	Ohio
A.B. 1942, University of California		A.B. 1945, University of Toledo	
Hancock, Mary Alyne	Miss.	Harbison, Earle Harrison, Jr.	Mo.
Hancock, Nell	Tenn.	A.B. 1948, Washington University	
Hancock, Quinlan Harris	Va.	Harbold, William Kump	N.J.
Hand, Elizabeth Plarr	D.C.	Harcum, Richard Fredrick	Okla.
Hand, Mary Elizabeth	N.J.	Hardee, Howard Lee	N.C.
A.B. 1943, Knox College		Harden, James Blair	D.C.
Handler, Alvin Irving	D.C.	Hardesty, Miriam Anne	Iowa
B.S. in Ed. 1939, Syracuse University		Hardin, Albert Nolan	Va.
Handley, James Richard	Md.	Hardin, Dale Wayne	Ill.
Handy, Delcie Mae	Va.	A.B. 1949, The George Washington University	
Handy, John Bruce	D.C.	Hardy, Edna Alice	Va.
A.B. 1943, Washington and Lee University		Hardy, James Ralph	Va.
Hanes, Betty R.	Ohio	Hargrove, William Owen, Jr.	D.C.
Hanes, Eva Mae	Va.	Hargy, Francis Robert	Md.
Hanes, Richard Baldwin	N.C.	A.B. 1948, The George Washington University	
A.B. 1948, Cornell University		Haring, Gilbert Ralph	Va.
Haney, Donald	N.C.	Haringer, Albert Michael	Va.
Haney, Earle, Jr.	D.C.	B.S. 1938, The George Washington University	
Haney, Robert Locke	Calif.	Harlan, John Cooper	Va.
A.B. 1949, University of California		Harlan, Margaret Minerva	Ohio



Harless, Bernard Griffith	Va.	Harris, Martha Jane	D.C.
A.B. 1934, Washington and Lee University		B.S. 1942, University of Pittsburgh	N.C.
Harley, John Key	Ky.	Harris, Mary Louise	D.C.
Harlin, Harriet Ann	Ill.	Harris, Melvin Ray	Okla.
B.S. 1946, University of Illinois		Harris, Paul Austin	
M.S. 1949, Kansas State College of Agriculture and Applied Sciences		A.B. 1949, The George Washington University	Va.
Harloff, William Carroll	Md.	Harris, Raymond Walker	N.Y.
Harlow, Margaret Helen	Minn.	Harris, Robert H.	
A.M. 1941, George Peabody College for Teachers		A.B. 1949, The George Washington University	Iowa
Harmer, Don Stutler	D.C.	Harris, Richard Carl	
Harmon, Alton Ernest	Md.	B.S. 1947, Iowa State College of Agriculture and Mechanic Arts	Va.
B.S. 1930, Oklahoma Agricultural and Mechanical College		Harris, Thomas Gordon	
Harmon, Clark Thomas	D.C.	B.S. 1949, Lynchburg College	D.C.
Harmon, Marcia Joan	D.C.	Harris, Viridin Hoyle	Calif.
Harmon, Richard Prescott	Mass.	Harris, Virgil Erwin	Va.
B.S. 1935, Harvard University		Harris, Virginia Berenice	
M.S. in Ed. 1937, State Teachers College, Boston		B.S. 1940, University of Virginia	D.C.
Harmon, Robert Brooks	Md.	Harris, William Llewellyn	D.C.
B.S. 1941, University of Maryland		Harris, William Penn	N.C.
Harmon, Thelma Louise	Maine	Harris, Willie Lucille	Calif.
Harms, Dorothy May	D.C.	Harrison, Adolph Charles, Jr.	Md.
B.S. 1949, New York University		Harrison, Alexander	D.C.
Harmstone, Richard Channing	D.C.	Harrison, Alexander Aris	
Harney, John Brooks	Ill.	B.S. 1949, Georgetown University	Va.
A.B. 1941, Allegheny College		Harrison, Anne Sara	D.C.
Harper, Anita Alvera	D.C.	Harrison, Archibald Chapman, Jr.	Va.
A.B. 1945, Syracuse University		Harrison, Barbara Bonell	
Harper, Bertha Peterson	N.Y.	B.S. 1941, Madison College, Virginia	D.C.
A.B. 1939, M.A. 1941, University of Rochester		Harrison, Byron Edward	Va.
Harper, Brandon Neville	Tenn.	Harrison, Eleanor Smith	Md.
Harper, Edith Elizabeth	D.C.	Harrison, Elizabeth Toupass	Va.
Harper, Elizabeth Josephine	Mo.	Harrison, Eugene Carter	Pa.
Harper, John Alexander, Jr.	Md.	Harrison, George Joseph	Va.
Harper, Richard Howard	W.Va.	Harrison, Glenn Charles	D.C.
Harper, Robert Charles	Md.	Harrison, John Donald	Va.
Harper, William Risque	Ky.	Harrison, John Houston	
Harpster, Lyndale Roberta	Md.	A.B. 1946, University of Virginia	N.C.
B.S. 1948, The George Washington University		Harrison, John Millard	Va.
Harrah, Phyllis Anne	Md.	Harrison, Junius Henry	Mass.
Harrigan, John Thomas	N.J.	Harrison, Louis Pincus	
Harrill, Robert Boyce	N.C.	B.S. 1949, The George Washington University	D.C.
Harrington, David Michael	N.J.	Harrison, Mignonette Eulalie	D.C.
Harrington, Elaine Mary	N.Y.	Harrison, Paul Nichols	Md.
Harrington, Margaret Willard	Va.	Harrison, Raymond William	
Harris, Anne	Tex.	B.S. 1949, University of Maryland	D.C.
A.B. 1949, Texas College of Arts and Industries		Harrison, Robert Scott	Pa.
Harris, Anne Overton	Va.	Harrison, Ruth	La.
B.S. 1947, Mary Washington College		Harrison, Thelma Winifred	D.C.
Harris, Bertha Florence	D.C.	Harriss, Florence Hazel	D.C.
Harris, Catherine	D.C.	Harron, Meyer Jacob	
Harris, Chancellor Elwood	Va.	A.B. 1949, The George Washington University	D.C.
B.S. 1934, University of Kentucky		Harrow, Lee Salem	
Harris, Charles Manning, Jr.	Fla.	B.S. 1946, The George Washington University	N.Y.
Harris, Donald Alvan	D.C.	Harrow, Robert Lee	Va.
Harris, Doris Lee	Va.	Harryman, Patricia Jo	W.Va.
A.B. 1937, Concord College		Harshbarger, Sam Ross	
Harris, Emmett Watkins	Va.	A.B. 1949, West Virginia University	Calif.
Harris, Florine Elizabeth	Va.	Harshman, Glenn Warren	D.C.
B.S. 1939, College of William and Mary		Hart, Anna Marie	D.C.
Harris, Forest Klaire	D.C.	Hart, Bobby Jack	Va.
B.S. 1949, The George Washington University		Hart, Charles Arvel	
Harris, John Samuel, Jr.	D.C.	B.S. 1942, Wake Forest College	Wis.
B.S. 1943, Wilson Teachers College		Hart, Eugenia Ann	Ill.
		Hart, Harold Mathews, Jr.	D.C.
		Hart, Helen Frances	
		B.S. in Ed. 1939, Boston University	Ind.
		Hart, Margaret Dawson	D.C.
		Hart, Nelson Perry	



Hart, Patricia Ann		Hattman, Walter David	Md.
Hart, Robert Norton	Okla.	Hauck, William McRae	Ind.
B.S. 1941, Wilson Teachers College	D.C.	Haug, Irving Manson	Wash.
A.M. 1947, The George Washington University		A.B. 1948, University of Washington	D.C.
Hart, Seward Lyman	S.D.	Haugan, Gertrude Marian	D.C.
A.B. 1938, Yankton College		Haupt, Charles Caldwell	N.Y.
Hart, Stephen Ambrose	Iowa	Hausch, Adolph Paul	D.C.
B.S. 1941, St. Ambrose College		Hausman, Helen M.	N.Y.
LL.B. 1948, Georgetown University		Hausman, Howard Jay	
Hartford, Thomas James, Jr.	D.C.	A.B. 1939, College of the City of New York	
Hartley, Hugh Harris	D.C.	A.M. 1942, New York University	D.C.
Hartley, Janet Wilson	D.C.	Hausner, John Burns	Md.
B.S. 1949, University of Maryland		Haut, Milton Joseph	
Hartley, Jean Doris	D.C.	B.S. in Ed. 1935, M.S. in Ed. 1940, Rutgers University	Va.
Hartline, Robert Hind	Va.	Havell, Olga Marge	D.C.
Hartman, Bruce Reiff	Calif.	Havens, William Dodge, Jr.	D.C.
Hartman, Charles Clifford, Jr.	Pa.	Haver, Doris Audrey	Iowa
Hartman, Harry Edson	Calif.	Hawbaker, Dorothy Jean	D.C.
Hartman, Nona Claire	Md.	Hawes, Elizabeth	
Hartmann, Gail Milton		A.B. 1949, University of North Carolina	Va.
A.B. 1949, University of Chattanooga	Md.	Hawes, Russell Llewellyn	
Hartzell, Jay Stanley	Md.	B.S. 1947, M.S. 1948, University of Maryland	Md.
Hartzell, Raymond Howard	R.I.	Hawk, Gordon Leigh	Ga.
Harvey, Donald Curtiss	D.C.	A.B. 1948, American University	
Harvey, Gertrude Elvira	Wis.	Hawkins, Genevieve Elizabeth	Fla.
A.B. 1927, Waynesburg College		B.S. 1949, Berry College	
Harvey, Harriet Drucilla	N.Y.	Hawkins, Glenn John	
B.S. 1948, University of Wisconsin	Md.	B.S. in P.H.E. 1947, Georgia Institute of Technology	Ga.
Harvey, Herbert Raymond	Iowa	Hawkins, Herman Edmond	D.C.
Harvey, Lulie Virginia	D.C.	Hawkins, Herschel Bernese	D.C.
Harvey, Patrick Richard		Hawkins, Josias Henry, Jr.	Va.
Harvey, Robert Henry		Hawkins, Kathryn Mather	Tex.
A.B. 1948, The George Washington University		Hawkins, Laura Sidney	N.Y.
Harveycutter, Helen Jean	Md.	Hawkins, Martha Eleanor	Calif.
Harwood, Paul Vincent	Mass.	Hawkins, Richard Lyon	Va.
Harwood, William Robert, Jr.	Md.	Hawks, Arnold Wayne	D.C.
Hashimi, Syed Mohammad Tagi	India	Hawn, Elsie G.	D.C.
A.B. 1937, A.M. in Econ. 1939, A.M. in Engl. 1941, Osmania University, India		Haworth, Marjorie Helen	
Hashman, Lloyd Russell	Ind.	A.B. 1942, Mills College	Fla.
B.S. 1949, Indiana University		Hawthorne, Betty June	Va.
Haske, John Reed	D.C.	Hawthorne, Charles Byrd	
Haskell, Boris	Mass.	B.S. 1949, The George Washington University	Ohio
A.B. 1944, Harvard University	Calif.	Hawthorne, Mary Aurelia	
B.S. in Eng. 1949, The George Washington University		A.B. 1949, University of North Carolina	D.C.
Haskins, Elma Hayes	Va.	Hay, Helen H.	Pa.
Haskins, Margaret Varda	Wis.	Hay, Wilbert Dale	
Haskins, Guy Rowe	D.C.	B.S. 1949, Bucknell University	Md.
Haslup, Allen Lee	Fla.	Haycraft, Glenn Goodwin	
Hastings, Delores Arlene	D.C.	A.B. 1940, The George Washington University	D.C.
A.B. 1947, The George Washington University		Hayden, Anne Elizabeth	Md.
Hastings, James Riley	D.C.	Hayden, James Howard	Md.
Hastings, Jo Anne Frances	Mo.	Hayden, Leon Charles	D.C.
Hastings, Theodore Kenneth	Del.	Hayden, Mabel Scott	Mont.
Hastings, William Harold	Pa.	Hayek, Paul Austin	Iowa
Hatch, Albert Haig		Hayek, Will J.	Minn.
A.B. 1927, University of Pennsylvania		Hayes, Bernice Anne	Maine
LL.B. 1933, Temple University	Utah	Hayes, Edward Matthew, Jr.	D.C.
Hatch, Elaine	Md.	Hayes, Edwin William	Va.
Hatch, Francis Joseph	Ala.	Hayes, Joe	Minn.
Hatch, William Wilson	W.Va.	Hayes, John Keller	D.C.
Hatfield, William Adair		Hayes, Patricia Anne	
A.B. 1947, West Virginia University	D.C.	A.B. 1942, College of St. Teresa, Minn.	N.Y.
Hattis, Russell Elmer		Hayes, Robert William	
B.S. in E.E. 1947, University of Illinois	D.C.	A.B. 1939, Columbia University	
Hattis, Shirley Lois			
A.B. 1949, University of Illinois			



Hayler, Robert Ward, Jr.	Ind.	Heckman, Alexander Irving	D.C.
B.S. 1941, United States Naval Academy		Heckman, Dorothy Anita	N.D.
Hayley, Basil	Va.	A.B. 1949, The George Washington University	Pa.
A.B. 1948, The George Washington University		Heckman, Francis Austin	B.S. 1949, Lebanon Valley College
Haynes, Alton Myles, Jr.	D.C.	Heckman, Grace Catherine	D.C.
A.B. 1949, University of North Carolina		A.B. 1947, Maryville College	N.J.
Haynes, Chester St. George	D.C.	Hedden, John Osborne	A.B. 1948, Drew University
Haynes, Elfrieda Grace	Iowa	Hedges, Harold Talmadge	D.C.
Haynes, Frances Gore	D.C.	Hedges, Richard Henry	Md.
Haynes, June Lillian	Va.	Hedley, Robert Kenneth	Ill.
Haynes, Norma Edith	Va.	Hedrich, Albert Louis	D.C.
Haynes, Robert Eugene	D.C.	Hedrick, Aileen Frances	W.Va.
Haynos, Joseph G.	Pa.	Hedrick, Betty Mace	Va.
Hays, Gladys Agee	Tenn.	Hedrick, Robert Kenny	W.Va.
B.S. 1937, University of Tennessee		Hedstrom, Axel Bernard	D.C.
Hays, Jesse Roland	D.C.	Hedtke, Kenneth Arthur	Minn.
Hays, Marion Steele	Ark.	A.B. 1949, University of Minnesota	
A.B. 1948, University of Arkansas		Heeney, Elizabeth Anne	D.C.
Hays, Ralph Emerson, Jr.	Miss.	A.B. 1946, New Jersey State Teachers College, Upper Montclair	
A.B. 1949, Millsaps College		Heffernan, James Mead	W.Va.
Hays, Richard Leland	Va.	Hefflin, Edward Lee	Md.
Hays, Woodson Grey	Md.	Heft, Anne	D.C.
Hayward, Richard Wright	Md.	Hegdahl, Gordon Leroy	S.D.
Hayward, William Gammon, Jr.	D.C.	Hegeman, Christine Ruby	Mich.
Hazebroek, Raymond Albert George	D.C.	A.B. 1948, University of Michigan	Md.
Hazelgrove, Virginia Lee	Va.	Heggemann, Rahe Henry	Va.
Hazell, Joseph William, Jr.	Md.	Hegler, Erastus Jerome	
B.S. 1949, Harvard University		A.B. 1929, Catawba College	D.C.
Hazelton, Etta Jo	D.C.	Heglin, Howard James	
Hazur, Paul John	Va.	A.B. 1948, A.M. 1949, University of South Carolina	N.Y.
A.B. 1948, The George Washington University		Heiberg, James Edward	N.Y.
Hazzard, George Olof	Pa.	Heidgerd, Lloyd Hugo	
B.S. in M.E. 1935, Villanova College		A.B. 1941, Oberlin College	
Hazzard, Joan Marye	Md.	M.A. 1948, Columbia University	D.C.
Head, Almaria	D.C.	Heiffer, Melvin Harold	
Heald, Ruth Virginia	Va.	B.S. 1949, College of William and Mary	Md.
Healey, Alan John	D.C.	Heilmann, Marjory Ann	D.C.
A.B. 1948, The George Washington University		Heim, Seymour	Va.
Healey, Patrick Francis	Md.	Heimann, Peter Klaus	D.C.
Healy, Paul Thomas	W.Va.	Hein, Bernard Seymour	Md.
Hearn, Alexander McMurray	Mo.	Heine, Edward George	D.C.
Hearn, Richard Lee	Md.	Heine, John Montgomery	Md.
Heart, Gladys Matilda	D.C.	Heine, Margaret Shirley	D.C.
Heart, Margaret Josephine	D.C.	Heinzel, Joseph Russell	D.C.
Heasley, Herbert Kay	Tex.	Heinzerling, Marjorie Lillian	D.C.
Heasley, Robert Charles	D.C.	B.S. in Ed. 1929, Southeastern State College	W.Va.
Heath, Daniel William	Va.	Heishman, Jenniss Rose, Jr.	D.C.
Heath, Wesley Tyler, Jr.	N.C.	Heisler, Barbara June	Tenn.
Heaton, Elizabeth Rounceville	Va.	Heisler, George Thomas, Jr.	D.C.
Heavey, Thomas Jackson	Va.	Hekimian, Moses J.	D.C.
B.S. 1917, United States Military Academy		Held, John Carl, Jr.	Md.
Hebb, Angus Gordon	Vt.	Helfrich, Susan Lipps	Norway
Hebbard, Robert Millard	Va.	Hellan, Ruth	
Hebda, Edward Albert	D.C.	Heller, Homer Kelsey	D.C.
A.B. 1939, Pennsylvania State College		Heller, Milton	D.C.
Hebele, Harold William	D.C.	Heller, Niles Roy	
A.B. 1949, Roosevelt College		B.S. in Ed. 1937, Pennsylvania State Teachers College, East Stroudsburg	Md.
Heberling, Emory Donald	D.C.	Heller, Norman Harold	D.C.
Hebert, Paul Edmond	Mass.	Hellerman, Leo	
Hecht, Irving Mark	Md.	B.E.E. 1946, College of the City of New York	Pa.
B.B.A. 1947, College of the City of New York		Hellerman, Rebecca Cornell	D.C.
Hecht, Norman Francis	D.C.	A.B. 1937, Hood College	
Heck, James Edward	D.C.	Hellman, Ann Francis	D.C.
Heck, Janice Carolee	Va.	Hellmuth, James Grant	
Heck, John Henry	Pa.	B.S. 1948, Yale University	
A.B. 1941, Pennsylvania State College			
Heckard, Dona Jean	D.C.		



Hellstrom, Ralph Edwin A.B. 1945, Augustana College	Ill.	Hennessy, John William	Conn.
Helm, Herschel Hancock, Jr. A.B. in Govt. 1948, The George Washington University	Ky.	Hennessy, Thomas Francis	D.C.
Helm, James Presley	Ky.	Hennessy, Gerald Craft	D.C.
Helmandollar, Elinor Pennington	W.Va.	B.S. 1948, University of Maryland	D.C.
Helmick, Joyce Gardiner	Va.	Henney, Alan Gilbert	Pa.
Helminiewicz, Richard Gerard	D.C.	Hennigan, Helen Mary	W.Va.
Helton, Henry Stephen	D.C.	Henretta, David Howard	Md.
A.B. 1937, Wabash College	D.C.	Henretty, Robert Emmett	D.C.
Heltzel, Robert Thomas	W.Va.	Henry, Edwin Stanton, Jr.	W.Va.
Helvenston, Edward Gary	Va.	Henry, James Faulkner	N.Y.
A.B. 1933, LL.B. 1938, Harvard University	Fla.	Henry, Jesse Jay, Jr.	Pa.
Helzer, Charles William	Fla.	Henry, Katherine Elizabeth	D.C.
B.S. in E.E. 1945, Georgia School of Technology	Mass.	A.B. 1947, University of Pennsylvania	Iowa
Helzner, Manuel Louis	Va.	M.S. 1948, The George Washington University	D.C.
Henbury, William Conrad	Tex.	Henry, Norman Holden	Iowa
B.S. 1934, United States Naval Academy	W.Va.	Henry, Raymond Charles	D.C.
Hemby, John Townley	D.C.	A.B. 1949, State University of Iowa	Pa.
Hemmings, John Buster	Conn.	Henry, Thomas Robert	Va.
B.S. 1940, University of Virginia	Md.	Hense, James Albert	Iowa
Hemple, William Ernst	Md.	Henshaw, Edmund Lee, Jr.	D.C.
Henault, Robert Joseph	Mo.	Henshaw, Robert Harvey	D.C.
Hendershot, Gladys Elaine	Ky.	Hensley, Marjorie	D.C.
Hendershott, Susan Jane	D.C.	A.B. 1947, The George Washington University	N.C.
Henderson, Alvin Eugene	Conn.	Hensley, Roy Wilson	D.C.
Henderson, James Lancaster	W.Va.	Henson, Chelsea Lucere	D.C.
B.S. 1939, United States Naval Academy	Wis.	Henson, Edwin Nott, Jr.	D.C.
Henderson, June Millicent	Va.	A.B. 1948, The George Washington University	D.C.
Henderson, Lyle Emerson	Va.	Henson, Lusitania Theresa	D.C.
B.S. 1945, Northwestern University	Va.	Hepner, Gerhardt Irving	D.C.
Henderson, Mark Hyrum	Conn.	Herbert, Edward Leslie	D.C.
B.C.E. 1940, University of Wyoming	Va.	A.B. 1948, The George Washington University	D.C.
Henderson, Morris King	Va.	Herbert, Lynn Gronna	Pa.
B.S. 1933, United States Military Academy	Va.	Herbik, Helen	Conn.
Henderson, William Herman, Jr.	Pa.	Herchakowski, Andrew	D.C.
B.S. 1939, The Citadel	Va.	Herde, Jean Frances	Md.
Hendrick, Charles Edward	N.Y.	Herd, Jean Robert	Md.
B.S. 1940, University of Maryland	W.Va.	Hergenrather, Charles Neale	D.C.
Hendrick, Earl George, Jr.	D.C.	A.B. 1948, The George Washington University	Va.
Hendrickson, Duane Winthrop	D.C.	Hergert, John Charles, Jr.	Puerto Rico
Hendrickson, Edith Orlena	D.C.	Heriot, Laura Lippitt	D.C.
Hendrickson, Emma Hope	D.C.	A.B. 1929, The George Washington University	D.C.
Hendrix, Arthur Keith	D.C.	Herl, Doris Lorraine Riley	D.C.
A.B. 1949, The George Washington University	D.C.	Herman, David Joseph	D.C.
Hendrix, Martha Sue	D.C.	Herman, Imogene Duffy	Va.
Hendrix, Mike Young	Ga.	Herman, Jack Robert	Va.
B.S. in Ed. 1934, Georgia Teachers College	D.C.	A.B. 1943, The George Washington University	Ohio
Hendrix, Paul Max	D.C.	Herman, Robert Hensey	D.C.
Hendry, Morgan Leland	D.C.	B.S. 1937, United States Military Academy	Va.
Henebry, Alfred Garrett	Conn.	M.B.A. 1948, Ohio State University	D.C.
B.E.E. 1940, State Teachers College, Castleton, Vt.	D.C.	Hermann, John Heinz	D.C.
A.B. 1949, The George Washington University	D.C.	A.B. 1935, St. Ambrose College	Md.
Henegar, Harold H.	D.C.	A.M. 1937, State University of Iowa	Va.
B.S. 1936, Southwest Missouri State College	D.C.	Hermann, Russell Royden	Pa.
A.M. 1940, University of Missouri	D.C.	A.B. 1949, State College of Washington	Mo.
Henesy, Gregory Thomas	D.C.	Hernandez, Carlos Juan	Puerto Rico
A.B. 1949, The George Washington University	D.C.	Hernandez, Jose Miguel	D.C.
Henesy, Thomas Joseph	D.C.	Herndon, Donald Floyd	D.C.
Henley, Robert Creevy	D.C.	Herndon, Elisabeth Lucille	Md.
Hennessy, Charles Edward	Md.	Herr, Caroline Virginia	Va.
Hennessy, John Henry, Jr.	Ga.	Herr, Harriet Martha	Pa.
		Herrick, Harold Colton, Jr.	Mo.
		B.S. in E.E. 1937, B.S. in Eng. Adm. 1938, Washington University	Mass.
		Herring, Donald Dewar	Ill.
		Herrington, Alice Elaine	



Herrity, Joseph B. J.	Pa.	Highsmith, Horace Eugene	D.C.
Herrmann, Vilma Marie	D.C.	Hight, Jack	Tex.
Herron, Frank, Jr.	Md.	B.S. 1949, College of William and Mary	
Hersey, Sheila Sheldon	D.C.	Hightower, John Newton, Jr.	Fla.
Hershman, Marshall	Mass.	Hildebrand, Grace W.	Va.
A.B. 1949, The George Washington University		B.S. in Ed. 1935, Pennsylvania State Teachers College, Slippery Rock	Md.
Hershon, Lucille F.	Va.	Hildebrand, John Raymond	
Herta, Jean Katherine	D.C.	A.B. 1949, University of California	Pa.
Hertle, Charlotte E.	N.Y.	Hildebrand, Robert John	
Hertz, Jerome Samuel	Mass.	Hildemann, Gertrude	Md.
Herwig, Anne Hildegard	Va.	Hildenbrand, Frieda Barbara Caroline	
Herz, Martin Florian	D.C.	A.B. 1932, Goucher College	Pa.
B.S. 1937, Columbia University		Hilderbrant, Earl Foster	D.C.
Heslen, Francis Charles	Ga.	Hildreth, David Melvin	Md.
Heslop, Robert Jarrott	N.Y.	Hildreth, Margaret Sage	D.C.
A.B. 1948, West Virginia University		Hildreth, Richard	Va.
Hess, Charlotte Rebecca	D.C.	Hill, Albert Daniel	Colo.
B.S. in Med.Tech. 1945, Temple University		Hill, Arlow Fielding	W.Va.
Hess, Frank Gadd	Pa.	Hill, Carolyn Elise	
Hess, George Frank	Md.	B.S. 1929, University of Virginia	Ga.
Hess, Ida Irene	Ky.	Hill, Charles Albert, Jr.	
A.B. 1931, Indiana University		B.S. 1941, United States Naval Academy	Va.
Hess, Maurice Albert	D.C.	Hill, Clark Daniel	
Hess, Wilbur Kenneth	Va.	B.S. in Ed. 1938, Wilson Teachers College	D.C.
A.B. 1949, The George Washington University		Hill, Dave Harmon	D.C.
Hess, William Jerome	Va.	Hill, Edward Weathers, Jr.	D.C.
Hess, William Werner	Fla.	Hill, Elizabeth Lois	
Hesselgesser, James Maxwell		A.B. 1947, Wayne University	Fla.
A.B. 1949, Berea College		Hill, Ermeta E.	Va.
Hessenhufer, John Charles, Jr.	Md.	Hill, Frank Highland	Md.
Hessler, Bernard Phillip	Md.	Hill, Gaylord Edward	Pa.
Hester, Donald Cameron		Hill, Gwendolyn Elizabeth	
A.B. 1943, Buffalo College		B.S. 1943, Indiana State Teachers College, Pa.	D.C.
A.M. 1944, Ohio State University		Hill, Henley Charles	Va.
Hester, Juanita	Ga.	Hill, James Wilburn	D.C.
Hettich, Paul Walter	D.C.	Hill, John Henry	
Hetzler, William Joseph	Md.	A.B. 1944, A.M. 1947, Columbia University	Va.
B.S. 1948, Georgetown University		Hill, Joseph Andrew	
Heule, Franklin Ivanhoe	Ga.	A.B. 1939, Lynchburg College	Va.
Hewett, Ellen Nancy	N.Y.	LL.B. 1949, Louisiana State University	
Hewett, Norma Jean	Fla.	Hill, Joseph Carl	
Hewitt, Clifford Adelbert	Va.	B.S. 1940, Mount St. Mary's College Maryland	Mo.
Ph.G. 1937, Columbia University		Hill, Kenneth E.	
Hewlett, Glenn Howard	Ill.	B.S. 1940, University of Missouri	Md.
Heyer, Saul David	N.Y.	Hill, Leon McKenzie	D.C.
Hiatt, Geneva Morrow	D.C.	Hill, Marjorie Ann	D.C.
Hiatt, Howard Herschel	D.C.	Hill, Raymond Joseph	Va.
Hickerson, Florence Virginia	Va.	Hill, Richard Edwin	
B.S. 1927, College of William and Mary		B.S. 1949, Virginia Military Institute	Va.
A.M. 1943, George Peabody College for Teachers		Hill, Richard Work	Va.
Hickey, Elizabeth Ann	D.C.	Hill, Robert LeRoy	D.C.
Hickey, Robert Edmund	Conn.	Hill, Rosalie Victoria F.	
Hicks, James Thomas	Pa.	Ed.B. 1931, Rhode Island College of Education	Ind.
B.S. 1945, A.B., M.S. 1946, University of Pittsburgh		Hill, Thelma Pauline	Md.
Hicks, Louis Edward	Md.	Hill, Thomas Burbridge, Jr.	Va.
A.B. in Govt. 1947, The George Washington University		Hill, William Bethel, Jr.	
Hiemenz, James Glenn	Va.	B.S. 1941, University of Virginia	Norway
Hiers, Jasper Theodore III	N.C.	Hille, Dagny Margrethe	D.C.
Hiestand, Dale Melvin	Ohio	Hillebrand, Herbert Walter	
A.B. 1949, Mount Union College		A.B. 1943, Elmhurst College	D.C.
Hieta, Clifford William	Va.	Hilliard, Benjamin Clark	
Higbee, Charles Eldon	N.M.	A.B. 1948, West Virginia University	Ala.
Higginbotham, Hazel M.	W.Va.	Hilliard, Glenn Schwartz	Md.
Higgins, Blanche Wirtly	Md.	Hilliard, Kathryn Coombs	Wis.
Higgins, Louis Edward	Ill.	Hillier, Floyd William	
Higgins, Ruth Eleanor	Pa.	B.S. 1948, Michigan State College	
Higginson, Ella Joan	Va.		



Hillman, Franklin Powell	Va.	Hlubbs, Julius George	Md.
A.B. 1936, Emory and Henry College		A.B. 1929, Gettysburg College	
A.M. 1940, The George Washington University		Ed.M. 1949, Johns Hopkins University	China
Hillman, Jack Allan	D.C.	Ho, Pei-Shih	Va.
Hillman, William Jennings	Va.	Hobart, Thomas D.	
A.B. 1925, Emory and Henry College		B.S. in E.E. 1941, Virginia Polytechnic Institute	Fla.
Hillock, Donald MacLean	D.C.	Hobbes, Alan Buxton	
B.S. 1949, American University		A.B. 1939, Washington and Lee University	
Hillyard, John Francis	D.C.	LL.B. 1947, The George Washington University	
Hilton, Andrew Carson	Miss.	Hobbs, Edward Victor	Md.
Hilton, Fred Herbert, Jr.	D.C.	Hobbs, Herman Hedberg	Va.
A.B. 1935, A.M. 1948, University of Pittsburgh		Hobbs, Madge Elois	Mo.
Hilton, John Perry	D.C.	Hobbs, Perda Rose	Va.
Hilton, Rhodene Elizabeth	Va.	Hobbs, Richard Huntington	D.C.
Hilton, William Philip	D.C.	Hobday, Vincent Nelson	D.C.
Himel, William		Hoble, Stedman Bennett	Calif.
B.S. 1937, Northwestern University		A.B. 1949, Harvard University	
Himelfarb, Jordan Sheldon	D.C.	Hobson, Carlton McKinley, Jr.	Va.
Himelfarb, Stanford William	D.C.	Hochman, Gertrude	D.C.
Himmel, Ivan	Ill.	Hochwald, Jack	D.C.
B.S. 1947, United States Naval Academy		Hocking, William Mayhew	Md.
Hinckley, William Wheeler	Md.	Hodge, David MacMahan	Pa.
A.B. 1931, Rollins College		B.S.S. 1949, Georgetown University	
A.M. 1933, Columbia University		Hodge, Doris Gertrude	Nebr.
Hine, Frank Brown	Va.	Hodge, Dorothy Ann	Nebr.
Hiner, Richard L.	Iowa	Hodge, William Rust	D.C.
B.S. 1929, Iowa State College of Agriculture and Mechanic Arts		Hodges, Ashley R.	Maine
A.M. 1933, The George Washington University		Hodges, James Edward	Md.
Hines, Charles Widmire	D.C.	Hodges, Quinton Edward	Ga.
Hines, Emmett Womack, Jr.	N.Y.	B.S. 1935, University of Georgia	
B.S. in M.E. 1946, Cornell University		M.S. 1937, John B. Stetson University	Va.
M.B.A. 1948, Columbia University		Hodges, Shirley Rice	Ala.
Hines, Theodore Christian	D.C.	Hodges, Willard Jefferson, Jr.	
Hines, William Albert	Tenn.	LL.B. 1937, University of Alabama	
Hines, Patricia Willamette	Canal Zone	Hodgson, Jack Charles	D.C.
Hino, John William	D.C.	Hodgson, Robert Waller	Calif.
Hintze, Arthur Harris	D.C.	Hoefel, Bruce Reginald	N.Y.
Hintze, William	D.C.	B.S. 1946, United States Naval Academy	
B.E.E. 1949, The George Washington University		Hoefel, Frederick Adams Carl	Va.
Hirsch, Robert Bruce	D.C.	Dr. Jur. 1931, Friedrich-Wilhelms University, Berlin	
Hirschfield, Kenneth	N.Y.	LL.M. 1941, Harvard University	
Hirsh, Victor Raymond	D.C.	Hoepner, Russell Leroy	D.C.
Hirst, Mary Cornell	Md.	Hoernig, Kurt Heinz	Germany
A.B. 1945, Goucher College		Dr. Jur. 1941, The University of Berlin	Pa.
Hise, James Cletis	Ill.	Hoff, Frank Xavier	
A.B. 1948, University of Illinois		B.S. 1949, Mount St. Mary's College	D.C.
Hise, William Curtis	Ill.	Hoff, Joseph Harrison	Va.
A.B. 1948, A.M. 1949, University of Illinois		Hoffheins, Louanne	Ind.
Hisey, Donald Gene	Ohio	Hoffman, Arthur Daniel	N.Y.
Hisle, Clinton Montgomery	D.C.	Hoffman, Conrad Richard	Va.
Hiss, Alfred Lee	W.Va.	Hoffman, Eleanor Louise	
Hiss, Ann Grainger	D.C.	A.B. 1945, Miami University	N.Y.
Hitchcock, Allen Merrill	Vt.	Hoffman, Howard Paul	D.C.
Hitchcock, Barbara Singley	D.C.	Hoffman, John Charles	
A.B. 1943, Columbia University		B.S. 1948, The George Washington University	
Hitchings, Willard Grant	N.Y.	Hoffman, Leon David	Va.
Hite, Winston Martin	Va.	Hoffman, Marion L.	D.C.
Hitz, Frederick William, Jr.	Pa.	B.S. 1940, Pennsylvania State Teachers College, Bloomsburg	
B.S. 1939, Pennsylvania State College		Hoffman, Robert Douglas	D.C.
Hix, Ernest Theodore	Va.	Hoffman, William Alexander III	Va.
B.M.E. 1949, The George Washington University		Hofmann, Joan	N.Y.
Hixon, Deion Lyle	Ala.	Hofrichter, Leonore A.	Md.
Hlatky, Eduard	D.C.	Hogan, Douglas LeRoy	D.C.
Hleovas, George Nicholas	N.Y.	Hogan, Francis Eugene	D.C.
		Hogan, John Edward	Va.
		Hogan, John Francis, Jr.	Md.
		A.B. 1940, Mercer University	



Hogan, Marjorie Bell	Md.	Holman, John Desmond	Va.
A.B. 1942, Shorter College		B.S. 1944, Webb Institute of Naval Architecture	
Hogan, Walter Thomas, Jr.	Ill.	Holman, William Brenner	Iowa
Hogewind, Cornelia Johanna	Netherlands	Holme, Justus Mitchell	Md.
A.B. 1947, Smith College		B.S. in C.E. 1930, M.S. 1940, University of Pennsylvania	
Hohmann, Thomas Edward	Md.	M.S. 1932, Lehigh University	Va.
Hokanson, Oscar Melvin	Va.	Holmes, Darrell Forsythe, Jr.	D.C.
Hoke, John Ray	Md.	Holmes, Elizabeth Jean	D.C.
Hoke, Julius Unverzagt	Pa.	Holmes, Ethel Catherine	Wash.
B.S. in Ed. 1940, Pennsylvania State Teachers College, Shippensburg		Holmes, Gerald Peter	
Hoke, Neil Herman	D.C.	A.B. 1947, University of Washington	D.C.
A.B. 1949, The George Washington University		Holmes, Grace Bruce	
Holben, Donald Russell	Va.	B.S. 1919, University of Maryland	
Holbrook, Ollie James	Ky.	M.S. 1922, Ph.D. 1925, The George Washington University	D.C.
Holcomb, Frederick Morse, Jr.	D.C.	Holmes, Jentry Scott	
Holcombe, William Collis	D.C.	A.B. 1948, The George Washington University	D.C.
A.B. 1947, The George Washington University		Holmes, Paul Francis	Md.
Holzman, Frank Joseph	Pa.	Holmes, Thomas James	
A.B. 1949, Muhlenberg College		B.S. 1924, University of Maryland	
Holden, Jack Pritchard	Md.	M.S. 1930, The George Washington University	Conn.
Holden, Karlene Mae	Va.	Holmes, Wilbur Thomas	
Holder, Richard Joseph	Pa.	A.B. 1938, Wesleyan College	
Holderness, Robert B.	Va.	A.M. 1939, Columbia University	D.C.
Holdsambeck, Sam	Ala.	Holmgren, Carol Mae	Conn.
Hole, Mary Elizabeth	Oreg.	Holmroyd, Richard Charles	Ill.
Holeman, William Daniel	Tenn.	Holst, Eugene Larson	
Holford, Bond Larry	Md.	B.S. in Ed. 1940, Milwaukee State Teachers College	Va.
Holland, Alice	Va.	Holt, Clara Naomi	Ill.
Holland, Emily Godfrey	Va.	Holt, Edward Brewster	
B.S. 1927, University of Pennsylvania		B.S. 1947, University of Michigan	D.C.
Holland, Harrison Melsher	Wash.	Holt, Elmer Dean	Okl.
A.B. 1944, University of Washington		Holt, Felix Thomas, Jr.	
A.M. 1949, Columbia University		A.B. 1949, American University	Hawaii
Holland, Irene T.	D.C.	Holt, George Paulet	Wash.
Holland, John William	Ohio	A.B. 1949, University of Hawaii	Va.
Holland, Merle Fleming	Va.	Holt, James Howard	
Holland, Morton	N.Y.	Holt, Nadine R.	
B.S. in E.E. 1947, Cornell University		B.S. 1940, University of Maryland	D.C.
Holland, Sallie Lu	Va.	Holtz, Herbert Manuel	D.C.
Holland, Tristum Shandy	Va.	Holtzman, Irving	
A.B. 1949, Lynchburg College		A.B. 1940, Brooklyn College	D.C.
Holland, Waneta Umbel	Va.	Holtzman, Marilyn	Md.
B.S. 1935, West Virginia University		Holzworth, Dorothy Catherine	
Hollemen, Martin Everett	D.C.	A.B. 1944, College of Notre Dame of Maryland	
Hollenberg, Richard Alvin	Va.	A.M. 1946, Catholic University of America	Va.
Holler, Donald Wyatt	Md.	Honabach, Elmer Wilson	Ind.
Holley, Max Vinson	Va.	Honeick, Walter	D.C.
B.S. 1939, The George Washington University		Honemann, Jean Louise	Mass.
Holliday, Reynold Ross	Pa.	Honey, Nancy Lee	N.Y.
Holliman, William Jelks, Jr.	Va.	Honig, Doris Marcelle	Md.
Hollingsworth, Gerald Eugene	D.C.	A.B. 1944, Hunter College	France
Hollingsworth, James Boetler	Md.	Honig, Ernie A.	Va.
Hollingsworth, Russell Kuhner, Jr.	D.C.	Honoré, Annie Marie-Laure	
Hollingsworth, William Leon	D.C.	Honsowetz, Russell Edward	
Hollis, Elda Lorraine	Pa.	B.S. in Ed. 1936, University of Idaho	Va.
Hollis, Frank	D.C.	Hood, Earl Winston	Md.
Hollis, Helen Louise	D.C.	Hood, Louis, Jr.	N.C.
Hollis, James George	Md.	A.B. 1948, Amherst College	
B.S. 1948, American University		Hood, Robert Hunter	Md.
Hollis, Thelma Elizabeth	Pa.	B.S. 1942, Davidson College	Pa.
Hollomon, Raymond Ernest	Oreg.	Hoogerwerf, Norman Francis	Ark.
Hollon, Thomas Harry	D.C.	Hook, George Oliver	D.C.
Holloway, John Ennis	Md.	Hooks, Arnold David	D.C.
Holloway, Lee Thomas	Md.	Hooper, Albert Gordon, Jr.	D.C.
Holloway, Walter, Scott, Jr.	Fla.	Hoopes, David Spencer	
Holman, Jane C.	Va.		
A.B. 1944, University of South Carolina			



Hoopes, Townsend Walter	N.Y.	Horsky, Eugene Gregory	N.Y.
A.B. 1944, Yale University		B.S. 1948, B.C.E. 1949, Rensselaer	
Hoover, Charles R.	Wyo.	Polytechnic Institute	
Hoover, Georgiana Christine	D.C.	Horsley, Carol Jean	Oreg.
Hoover, H. Denis	Va.	Horton, Donald Raymond	N.D.
B.S. 1934, Madison College, Va.		B.S. 1948, Valley City State Teachers	
Hoover, Wallace Archer	D.C.	College	
Hoover, William Edward	D.C.	Horton, Marvin Vale, Jr.	N.C.
Hope, Robert Allison	D.C.	B.S. 1948, University of North	
A.B. 1920, Presbyterian College		Carolina	
Hope, Robert Stocks	Va.	Horvath, Elizabeth Ann	Va.
Hopkins, Agnes Ferguson	D.C.	Horvath, John George	Md.
Hopkins, George Mathews Marks	Ala.	B.S. 1949, University of Denver	
B.S. in C.E. 1944, Alabama		Horvath, Leo James	Va.
Polytechnic Institute		B.S. 1942, Pennsylvania State College	
LL.B. 1949, University of Alabama		Horwitz, Harold	N.Y.
Hopkins, Gray Switzer	Va.	Hoshide, Toshio	Calif.
Hopkins, John William	Pa.	Hosier, Richard Charles	D.C.
Hopkins, Julius Prince	Va.	Hossfeld, Raymond Frederick	D.C.
Hopkins, Marguerite Marie Rose	Mass.	B.S. 1930, LL.B. 1934, The George	
Hopkins, Stephen Cornwell	D.C.	Washington University	
Hopkins, Theodore Reed	Calif.	Hotchkiss, Raymond	D.C.
A.B. 1947, Stanford University		Houck, David Russell	D.C.
Hoppe, Glenna Jean	Va.	Houde, Gilbert Joseph	Mass.
Hoppe, Louis William	Va.	Houghton, Evelyn Lohnes	Mass.
B.S. 1940, University of Illinois		B.S.E. 1942, Teachers College of the	
Hopper, Henry Pearson	Pa.	City of Boston	
B.S. in Ed. 1933, M.S. in Ed. 1934,		Houghton, Robert Clarence	N.Y.
University of Pennsylvania		Houk, Jo Anne	Va.
Hopper, Nathaniel Wilson	Md.	Houlditch, George Sam, Jr.	D.C.
Hopper, Thomas Bradford, Jr.	D.C.	Houle, Roger Audy	D.C.
Hoppmann, Kurt Heinz	Va.	Houpert, June Patricia	D.C.
Hoppy, Louise Marie	Okla.	House, Edward Hedley	D.C.
Hopson, Jeanne Louise	Ill.	House, Lawrence Samuel	Md.
Hopton, Nancy	Ill.	House, Margaret Irene	Va.
Hord, Keith Stuart	D.C.	House, Mary Elizabeth	Tenn.
Horel, Ned Carleton	Va.	House, Wayne Dewitt	Va.
A.B. 1937, Carroll College		Houseal, Robert Wright, Jr.	S.C.
Horen, Morton Elliott	Va.	B.S. 1943, The Citadel	
Horenstein, Joseph Chaim	D.C.	Houser, Frederick Russell	Pa.
Horivchi, Harold Shigeo	Md.	A.B. 1948, The George Washington	
Horn, Donald Raymond	Ill.	University	
B.S. 1935, Northwestern University		Houser, Herbert Harold	D.C.
Horn, Henry Joseph	Pa.	Houssiere, Robert Eugene	La.
B.S. 1941, Lehigh University		A.B. 1949, Spring Hill College	
Horn, Herbert Ogden	Va.	Houston, James Knox	D.C.
Horn, Rufus Austin	D.C.	Houston, Robert Joseph	D.C.
Horne, Joe Louis	D.C.	Houston, Sam	D.C.
B.S. 1941, United States Coast Guard		Houts, Vernon Van Cleve	Md.
Academy		B.S. 1936, Baker University	
Horne, Leon Russell	Mass.	Hovatter, Eugenous Melker	W.Va.
B.S. 1943, Northeastern University		Hovatter, James Jerome	Md.
Horne, Maude Moore	D.C.	Hoverson, Jean Cecelia	Va.
A.B. 1930, Duke University		Hovis, Dennis Elvin	Md.
A.M. 1934, University of North		Howadd, Percy John	Ala.
Carolina		B.S. 1949, University of Alabama	
Horne, Philip Scott	N.H.	Howar, Edmond	D.C.
Horning, Marjorie Ann	Md.	Howar, Raymond Joseph	D.C.
Horning, Ross Charles	S.D.	Howard, Betty Jane	Md.
A.B. 1948, Augustana College		Howard, Charles Raymond II	Ill.
Hornsby, William Paul	Ala.	Howard, Edward Digges	D.C.
Hornstein, Ida Edith	D.C.	Howard, Henrietta Rothwell	Wis.
Hornstein, Naomi	D.C.	B.E. 1937, Milwaukee State Teachers	
Horowitz, Elias	N.Y.	College	
B.S.S. 1941, College of the City of		Howard, John William	Md.
New York		A.B. 1949, Catholic University of	
Horowitz, Emanuel	N.Y.	America	
B.S. 1948, College of the City of		Howard, Robert Lynwood	Ala.
New York		A.B. 1948, University of Alabama	
Horowitz, Herbert David	Pa.	Howard, Ruth Phyllis	D.C.
LL.B. 1948, LL.M. 1949, The George		Howard, Sidney H.	N.Y.
Washington University		Howard, Thomas Burke	D.C.
Horowitz, Milton Arthur	D.C.	Howard, William John	D.C.
Horrigan, Michael James	D.C.	Howard, William Reed	Nebr.



Howard, William Rolland	Wis.	Hudgins, John Jefferson	D.C.
Howe, Alice Margaret	D.C.	LL.B. 1948, LL.M. 1949, The George Washington University	S.C.
Howe, Denis Herbert George	Md.	Hudson, Dugald Walker	
Howe, Jay Thomas	D.C.	B.S. 1940, Presbyterian College	
Howell, Anne Thomas	Va.	LL.B. 1949, The George Washington University	W.Va.
B.S. 1942, Madison College		Hudson, James Matthew	
Howell, David Mitchell	D.C.	A.B. 1948, The George Washington University	Md.
Howell, Frances Dodd	D.C.	Hudson, John Frederick	Va.
Howell, William Arthur	Colo.	Hudson, Joseph Randolph	
Hower, Nelson Luther, Jr.	La.	B.S. 1948, University of Virginia	D.C.
A.B. 1935, Louisiana Polytechnic Institute		Hudson, Robert Ray, Jr.	Ill.
Howerth, Shirley Claire	D.C.	Huff, Gerald Lewis	D.C.
Howerton, Charles Cabaness	Tex.	Huff, Marion Mitchell	D.C.
B.S. 1930, United States Naval Academy		Huff, Maxine	Md.
Howerton, John Benjamin	Va.	Huffman, Randolph Edgar	Minn.
A.B. 1949, A.M. 1950, University of Richmond		Huffman, Zelia Mary	Va.
Howerton, Joseph Benjamin	Md.	Hufford, Priscilla Frances	Conn.
Howes, James Knox	D.C.	Huggins, David Sherwood	D.C.
Howes, Timothy James	Mass.	Hughes, Brandau Chappelle	D.C.
A.B. 1948, Harvard University		Hughes, Brent Harland	Md.
Howett, Jay Miller	N.J.	Hughes, Carl Willis	
Howett, Mervyn Kenneth	Va.	B.S. 1947, Wilson Teachers College	Va.
Howland, Felix	Maine	Hughes, David Walker	D.C.
B.S. 1924, United States Naval Academy		Hughes, Edmund Crump	Pa.
Howland, Harold Howard, Jr.	Mass.	Hughes, Edward James	Ill.
A.B. 1947, The George Washington University		Hughes, Edward Williamson	
M.B.A. 1949, Harvard University		A.B. 1941, LL.B. 1947, Washington University	Pa.
Howley, John Reed	D.C.	Hughes, Elizabeth Margaret	D.C.
A.B. 1943, Georgetown University		Hughes, Francis Homer, Jr.	
Howser, Beverly Jean	Mass.	B.S. 1946, Salem College	Md.
Hoyle, Anne Mildred	Md.	Hughes, Harry Roe	
B.S. 1941, University of Maryland		B.S. 1949, University of Maryland	D.C.
Hoyle, Laura Moore	D.C.	Hughes, Henry Franklin	Va.
Hoyler, Hamilton Marshall	Va.	Hughes, James A.	Md.
A.B. 1937, Columbia University		A.B. 1940, New York University	
LL.B. 1948, Harvard University		Hughes, James Thomas	
Hoyme, Lucile Eleanor	D.C.	B.S. 1939, Southern Methodist University	Va.
Hoyt, Homer Lewis	Md.	Hughes, John James	Va.
Hoyt, Jeanne Edith	D.C.	Hughes, John Temple	D.C.
Hoyt, John G.	D.C.	Hughes, Marjory Eleanor	N.Y.
B.S. 1943, United States Military Academy		Hughes, Michael Vincent	D.C.
Hoyt, John Paul	Md.	Hughes, Robert Joseph	D.C.
B.S. 1928, Middlebury College		Hughes, William Malcolm	Md.
A.M. 1935, Columbia University		Hughes, William Wimsatt	Va.
Hoyt, Kenneth Boyd	Md.	Hughitt, Jeremiah Keefe	China
B.S. 1948, University of Maryland		Hui, Wing Yam	Ohio
Hoyt, William George	N.Y.	Hules, Robert Joseph	Va.
Hrozencik, John Ferdinand	Pa.	Hulfish, Harriett Virginia Folger	Va.
Hrysenko, Stanley Robert	N.J.	Hulfish, Joan Spofford	Pa.
Huang, Shing-Yi	China	Hulings, Harry Joseph	
A.B. 1945, Central Institute of Political Sciences		B.S. in Ed. 1939, Pennsylvania State Teachers College, California	Tenn.
A.M. 1949, The George Washington University		Hull, Alexander Harold, Jr.	Tenn.
Huard, Louis Philippe Roger	N.H.	Hull, Maury Isaac	
B.S. 1948, Georgetown University		A.B. 1932, Southwestern University	N.Y.
Hubartt, Glenn, Arthur, Jr.	Ind.	A.M. 1946, The George Washington University	D.C.
Hubbard, David	Va.	Hull, Warren Robertson	
Hubbard, Russell Hale, Jr.	Conn.	Hulley, James Pierce	
B.S. in E.E. 1944, Syracuse University		B.S. 1924, United States Military Academy	Ill.
Hubbard, William Franklin, Jr.	Md.	Huls, Ronald La Vern	D.C.
Huber, Doyle William	Ill.	Hulsey, Judson Dowling	Oreg.
Hudak, Mary Magdalen	Ohio	Hulsey, Thelma Carmen	Va.
Hude, Harry William	Miss.	Hulvey, Charles Newton, Jr.	
Hudgins, Ann Shearer	Va.	B.S. 1936, University of Virginia	



Hume, David A.B. 1937, University of Texas LL.B. 1946, Southern Methodist University	Tex.	Hurson, James Vincent B.S. 1948, American University	Md.
Hume, John Wesley Humes, Theodore Leon A.B. 1948, University of Pittsburgh	Wis. Va.	Hurst, Carl Wilson, Jr. A.B. 1949, The George Washington University	Tenn.
Hummel, Henry Black Hummer, Charles Allen Hummer, Robert Warren	D.C. Va. D.C.	Hurst, Georgia Leone Hurst, Thomas Lee Hurt, Mary Tex. A.B. 1949, The George Washington University	Mo. Md. Ala.
Humphrey, John Julian B.S. 1938, New York State College for Teachers, Buffalo M.S. 1939, St. Bonaventure's College and Seminary	D.C.	Hurwitz, Harlan Earl A.B. 1949, The George Washington University	D.C.
Humphrey, Joseph Henry, Jr. Humphrey, Lou Ann Humphreys, Richard Raum A.B. 1949, Ohio Wesleyan University	Tex. Va. Md.	Hury, Julia Ann Husic, Regina Harriet Hussar, Edward John A.B. 1945, The George Washington University	Conn. Pa. Ill.
Hundley, Henry Robert Hung, Ching Chong A.B. 1927, San Diego State College A.M. 1929, Columbia University	W.Va. China	Husser, Andrew Huston, Kathryn Elliott Hutchinson, Alan Stanton B.S. 1948, St. Martin's College	Va. Va. D.C.
Hungerford, Beverly Joan A.B. 1949, Mary Washington College	Conn.	Hutchinson, Eileen Marie Hutchinson, George Edward Hutchinson, Herbert Malcolm A.B. 1948, Duke University	D.C. D.C. N.J.
Hunley, William Henry Hunsaker, James Ewing Hunsaker, Katherine Frances Hunt, Edward Everhart M.P.A. 1949, New York University	Va. D.C. D.C. Tenn.	Hutchinson, Howard Preston Hutchinson, Nina Hutchinson, Wayne Frederick Hutchinson, William David A.B. 1949, University of Maryland	Va. Mich. N.Y. Va.
Hunt, Opal Hunt, Thomas Joseph Hunt, Warren Taylor Hunt, William George A.B. 1949, State University of Iowa	Tex. N.Y. Oreg. Iowa	Huter, O. Robert Hutko, John Hutman, Burton Simson Hutmire, Edward William Hutson, Harrison Darden A.B. 1948, Southeastern Louisiana College	Va. Pa. D.C. Calif. La.
Hunter, Donald Vanosdal, Jr. Hunter, Eldred Tait, Jr. Hunter, George Homer Hunter, Guy Norman Hunter, Jesse Smith B.S. 1942, New York State Teachers College, Oneonta	Md. Md. D.C. D.C. N.Y.	Hutson, Sylvia Fay Lorenz Hutt, James Brooke, Jr. B.S. in E.E. 1942, University of Michigan	Tex. Va.
Hunter, John Behr Hunter, Lucian O. Hunter, Millard Stanton B.S. 1938, University of North Carolina	W.Va. Ky. N.C.	Hutt, Stanley David Hutt, Vincent Benjamin Hutton, Daniel Cogdell A.B. 1947, University of Utah	D.C. N.Y. Va.
Hunter, Nancy Elizabeth Huntton, Richard Edwin A.B. 1949, The George Washington University	Vt. D.C.	Hutton, Junius Oscar B.S. 1941, University of Maryland	D.C.
Huntress, Andrew Whitehouse Huntt, Estella Elizabeth Hunziker, Frederick John B.S. 1949, Tufts College	Va. Md. N.J.	Huyer, Anne Hyde, Edward Richard B.S. in E.E. 1948, Purdue University	Fla. N.Y.
Hurd, Marjorie Kathryn Hurdle, Richard Emmett Hurley, Charles Warren Hurley, Helen Kathryn A.B. 1946, Seton Hill College	Minn. D.C. D.C. Pa.	Hyde, Grant Lafayette Hyde, Joanne Stratford Hydeman, William Robert A.B. 1935, Miami University A.M. 1937, Syracuse University	Calif. Md. Ohio
Hurley, John Gregory, Jr. Hurley, John James A.B. 1948, The George Washington University	D.C. D.C.	Hyman, Faye Marlowe Hyman, Harry Bruce Hyman, Wilbur Fuller Hymowitz, Helen Hymowitz, Shirley L. Hynes, Mary Esther B.S. 1948, University of Maryland	D.C. Md. D.C. D.C. Va.
Hurley, Joseph Patrick Hurley, Karl Corley Hurley, Mary Hope Hurley, Maryanne A.B. 1948, Geneva College	Md. Md. N.M. D.C.	Hynes, Robert Edward Hynes, Thomas Edmund	Va. Maine
Hurley, Thomas J. Hurley, Wilson Patrick B.S. 1945, United States Military Academy	D.C. N.M.	I Iacangelo, Ralph Pasquale B.S. 1948, Wilson Teachers College	D.C.
Hurschman, Jack	D.C.	Iandolo, Angelo John Iannarelli, Dominic Richard Ibrahim, Walid Yusuf	N.Y. Ohio D.C.



Ice, John Frederick	Pa.	Iseri, Kathleen	Calif.
Icenhower, David Edward	D.C.	Ishio, Sunao	Md.
Idoine, Leon Sumner	Md.	Ishiyama, Kyoko	Va.
B.S. 1940, University of Toledo		Iskrant, Albert Patrick	D.C.
M.Ph. 1947, University of Michigan		A.B. 1930, National University of	
Idov, Norris Benjamin	Md.	Ireland	
Iglehart, John Joseph	Md.	A.M. 1940, Catholic University of	
Ihara, Hideo	Calif.	America	
Ihrig, Katherine Aura	Ohio	Isler, Jeanette Arlene Caroll	Ill.
A.B. 1930, University of Wisconsin		Isley, Dale Elmer	D.C.
Iiams, Thomas M., Jr.	D.C.	Isley, Marilyn Rose	D.C.
Ikegami, David Takeshi	Hawaii	Isom, Clifford Clinton	D.C.
A.B. 1949, The George Washington		B.S. 1939, Kansas State College of	
University		Agriculture and Applied Science	
Illg, Paul Louis	D.C.	Israel, Alvin	Va.
A.B. 1936, A.M. 1941, University of		Israel, Thomas Sewell	Md.
California		Itnyre, Edwin Recher	D.C.
Imirie, Charles Wade	Va.	Ito, Violet Sumire	Pa.
Immen, Norbert George	D.C.	Iudicello, Lawrence Samuel	N.J.
Imre, Celal	D.C.	Iuso, Mary Jo	D.C.
Imrie, Walter Curtis	Va.	Iverson, Donald Bernard	Va.
B.S. 1946, Rhode Island State College		Iverson, John Roger	D.C.
A.M. 1949, American University		Ivey, William James	Fla.
Indorf, Frederick Anderson	Mo.	Ivey, William Richard	India
B.S. in Ed. 1938, University of		Iyer, S. Vancheswara	
Missouri			
A.M. 1949, The George Washington			
University			
Infosino, Carmelo John	N.J.	Jack, Paul Summers, Jr.	Va.
Ingalls, Ronald Boyd	D.C.	Jackowski, Amil Walter	Mass.
Ingerson, Robert Bruce	Minn.	B.S. 1949, American International	
Inglis, Anthony	N.Y.	College	D.C.
Inglis, Robert Scott	D.C.	Jackson, Betty Louise	Md.
Ingram, Frances Baker	D.C.	Jackson, Charles Edgerton, Jr.	
A.B. 1947, The George Washington		B.S. 1945, United States Naval	
University		Academy	
Ingram, Robert Lee	N.C.	Jackson, Duane J.	Okla.
Ingwersen, Ellen Edith	Denmark	B.S. 1936, Central State College	Mo.
Innamorati, Anthony Walter	Md.	Jackson, Eugene Joseph	Tenn.
B.S. 1938, Massachusetts Institute of		Jackson, Frances Beatrice	
Technology		B.S. 1931, East Tennessee State	
Innes, John Reynolds	D.C.	College	Md.
Innes, Yvonne Keeble	D.C.	Jackson, Frank Holbrook	
Inouye, Chizuko	Ariz.	B.S. 1938, University of Maryland	D.C.
Inserni, Hiram	D.C.	Jackson, Jeremy Shreve	Ga.
Intrater, Natalie Block	D.C.	Jackson, Joseph Warren	
Inzinna, Joseph Francis	N.J.	A.B. 1948, The George Washington	
Ionno, Joseph Anthony	Conn.	University	Va.
Iovino, Charles Anthony	D.C.	Jackson, Luther Harden	Md.
Irick, Leonard Mason	Ky.	Jackson, Marjorie Ann	Tenn.
Irico, Joseph	N.Y.	Jackson, Martha Nell	Md.
Irons, Edward Sterling	D.C.	Jackson, Owen Wilson, Jr.	D.C.
B.S. 1942, J.D. 1947, University of		Jackson, Philip Grant	Ind.
Illinois		Jackson, Robert Eugene	
Irons, Nancy Ione	Md.	B.S. 1947, The George Washington	
Irvin, William Gordon, Jr.	D.C.	University	D.C.
Irvine, Eleanor Hood	N.Y.	Jackson, Robert McClelland	Md.
A.B. 1937, Cornell University		Jackson, Ruth Stevenson	
Irving, George Timothy	Iowa	A.B. 1948, The George Washington	
Irwin, David Conrad, Jr.	D.C.	University	Va.
Irwin, Grattan George	W.Va.	Jackson, Sarah White	
A.B. 1947, West Virginia University		A.B. 1928, Agnes Scott College	
Irwin, Harry Elmer	D.C.	B.L.S. 1930, Emory University	D.C.
Irwin, Mort Foster	D.C.	Jackson, Thomas Lester	D.C.
Irwin, Ray William	Md.	Jackson, William Edward, Jr.	D.C.
Irwin, Wade Bryan	D.C.	Jacob, John Brevard	D.C.
Isaac, Charles Martin	D.C.	Jacob, Phyllis Eileen	N.Y.
A.B. 1949, The George Washington		Jacobi, George Rudolph	
University		A.B. 1948, Gettysburg College	Conn.
Isaac, Isaac	D.C.	Jacobs, Anne Baird	Md.
A.B. 1949, The George Washington		Jacobs, Arthur Alfred	
University		B.S. 1939, New York University	
Isaacs, Helen Marie	D.C.	LL.B. 1949, The George Washington	
Isaminger, Melvin James	D.C.	University	



Students Registered

459

Jacobs, Jack																																																																																																																																																																																																																																																							
Jacobs, John J.	D.C.	Janney, Tyler	N.Y.																																																																																																																																																																																																																																																				
B.S. 1943, State Teachers College, Kutztown	Pa.	Janook, Elizabeth Regina	Mich.																																																																																																																																																																																																																																																				
M.S. 1947, University of Pennsylvania		Janoski, Joseph Andrew	N.J.																																																																																																																																																																																																																																																				
Jacobs, Milton	D.C.	A.B. 1948, The George Washington University		A.B. 1948, The George Washington University		Janson, William Clifford	Va.	Jacobs, Morton Clifford		Janssen, Willard Gilbert	Md.	B.S. 1942, College of the City of New York	D.C.	B.S. 1948, St. Norbert College		Jacobs, Sidney Powell, Jr.		Janssen, William Joseph	N.Y.	Jacobs, Walter William	Va.	Jantz, John Alfred	Va.	B.S. 1934, College of the City of New York	N.Y.	Jaramillo, Amelia Canlas	Philippines	A.M. 1940, The George Washington University		Jarcho, Harold George	R.I.	Jacobsen, Nancy Jane	Maine	B.S. in E.E. 1940, Rhode Island State College		A.B. 1946, Colby College		Jarema, Frank Gerald	Ohio	Jacobson, Andrew	Pa.	Jarett, Irwin Meyer	D.C.	A.B. 1944, State University of Iowa	Iowa	Jarrett, Charles Harold	Va.	Jacobson, Lindsay Kay	Nev.	Jarrett, Harry Bean	Pa.	Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.
A.B. 1948, The George Washington University		Janson, William Clifford	Va.	Jacobs, Morton Clifford		Janssen, Willard Gilbert	Md.	B.S. 1942, College of the City of New York	D.C.	B.S. 1948, St. Norbert College		Jacobs, Sidney Powell, Jr.		Janssen, William Joseph	N.Y.	Jacobs, Walter William	Va.	Jantz, John Alfred	Va.	B.S. 1934, College of the City of New York	N.Y.	Jaramillo, Amelia Canlas	Philippines	A.M. 1940, The George Washington University		Jarcho, Harold George	R.I.	Jacobsen, Nancy Jane	Maine	B.S. in E.E. 1940, Rhode Island State College		A.B. 1946, Colby College		Jarema, Frank Gerald	Ohio	Jacobson, Andrew	Pa.	Jarett, Irwin Meyer	D.C.	A.B. 1944, State University of Iowa	Iowa	Jarrett, Charles Harold	Va.	Jacobson, Lindsay Kay	Nev.	Jarrett, Harry Bean	Pa.	Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.				
Jacobs, Morton Clifford		Janssen, Willard Gilbert	Md.	B.S. 1942, College of the City of New York	D.C.	B.S. 1948, St. Norbert College		Jacobs, Sidney Powell, Jr.		Janssen, William Joseph	N.Y.	Jacobs, Walter William	Va.	Jantz, John Alfred	Va.	B.S. 1934, College of the City of New York	N.Y.	Jaramillo, Amelia Canlas	Philippines	A.M. 1940, The George Washington University		Jarcho, Harold George	R.I.	Jacobsen, Nancy Jane	Maine	B.S. in E.E. 1940, Rhode Island State College		A.B. 1946, Colby College		Jarema, Frank Gerald	Ohio	Jacobson, Andrew	Pa.	Jarett, Irwin Meyer	D.C.	A.B. 1944, State University of Iowa	Iowa	Jarrett, Charles Harold	Va.	Jacobson, Lindsay Kay	Nev.	Jarrett, Harry Bean	Pa.	Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.								
B.S. 1942, College of the City of New York	D.C.	B.S. 1948, St. Norbert College		Jacobs, Sidney Powell, Jr.		Janssen, William Joseph	N.Y.	Jacobs, Walter William	Va.	Jantz, John Alfred	Va.	B.S. 1934, College of the City of New York	N.Y.	Jaramillo, Amelia Canlas	Philippines	A.M. 1940, The George Washington University		Jarcho, Harold George	R.I.	Jacobsen, Nancy Jane	Maine	B.S. in E.E. 1940, Rhode Island State College		A.B. 1946, Colby College		Jarema, Frank Gerald	Ohio	Jacobson, Andrew	Pa.	Jarett, Irwin Meyer	D.C.	A.B. 1944, State University of Iowa	Iowa	Jarrett, Charles Harold	Va.	Jacobson, Lindsay Kay	Nev.	Jarrett, Harry Bean	Pa.	Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.												
Jacobs, Sidney Powell, Jr.		Janssen, William Joseph	N.Y.	Jacobs, Walter William	Va.	Jantz, John Alfred	Va.	B.S. 1934, College of the City of New York	N.Y.	Jaramillo, Amelia Canlas	Philippines	A.M. 1940, The George Washington University		Jarcho, Harold George	R.I.	Jacobsen, Nancy Jane	Maine	B.S. in E.E. 1940, Rhode Island State College		A.B. 1946, Colby College		Jarema, Frank Gerald	Ohio	Jacobson, Andrew	Pa.	Jarett, Irwin Meyer	D.C.	A.B. 1944, State University of Iowa	Iowa	Jarrett, Charles Harold	Va.	Jacobson, Lindsay Kay	Nev.	Jarrett, Harry Bean	Pa.	Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																
Jacobs, Walter William	Va.	Jantz, John Alfred	Va.	B.S. 1934, College of the City of New York	N.Y.	Jaramillo, Amelia Canlas	Philippines	A.M. 1940, The George Washington University		Jarcho, Harold George	R.I.	Jacobsen, Nancy Jane	Maine	B.S. in E.E. 1940, Rhode Island State College		A.B. 1946, Colby College		Jarema, Frank Gerald	Ohio	Jacobson, Andrew	Pa.	Jarett, Irwin Meyer	D.C.	A.B. 1944, State University of Iowa	Iowa	Jarrett, Charles Harold	Va.	Jacobson, Lindsay Kay	Nev.	Jarrett, Harry Bean	Pa.	Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																				
B.S. 1934, College of the City of New York	N.Y.	Jaramillo, Amelia Canlas	Philippines	A.M. 1940, The George Washington University		Jarcho, Harold George	R.I.	Jacobsen, Nancy Jane	Maine	B.S. in E.E. 1940, Rhode Island State College		A.B. 1946, Colby College		Jarema, Frank Gerald	Ohio	Jacobson, Andrew	Pa.	Jarett, Irwin Meyer	D.C.	A.B. 1944, State University of Iowa	Iowa	Jarrett, Charles Harold	Va.	Jacobson, Lindsay Kay	Nev.	Jarrett, Harry Bean	Pa.	Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																								
A.M. 1940, The George Washington University		Jarcho, Harold George	R.I.	Jacobsen, Nancy Jane	Maine	B.S. in E.E. 1940, Rhode Island State College		A.B. 1946, Colby College		Jarema, Frank Gerald	Ohio	Jacobson, Andrew	Pa.	Jarett, Irwin Meyer	D.C.	A.B. 1944, State University of Iowa	Iowa	Jarrett, Charles Harold	Va.	Jacobson, Lindsay Kay	Nev.	Jarrett, Harry Bean	Pa.	Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																												
Jacobsen, Nancy Jane	Maine	B.S. in E.E. 1940, Rhode Island State College		A.B. 1946, Colby College		Jarema, Frank Gerald	Ohio	Jacobson, Andrew	Pa.	Jarett, Irwin Meyer	D.C.	A.B. 1944, State University of Iowa	Iowa	Jarrett, Charles Harold	Va.	Jacobson, Lindsay Kay	Nev.	Jarrett, Harry Bean	Pa.	Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																
A.B. 1946, Colby College		Jarema, Frank Gerald	Ohio	Jacobson, Andrew	Pa.	Jarett, Irwin Meyer	D.C.	A.B. 1944, State University of Iowa	Iowa	Jarrett, Charles Harold	Va.	Jacobson, Lindsay Kay	Nev.	Jarrett, Harry Bean	Pa.	Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																				
Jacobson, Andrew	Pa.	Jarett, Irwin Meyer	D.C.	A.B. 1944, State University of Iowa	Iowa	Jarrett, Charles Harold	Va.	Jacobson, Lindsay Kay	Nev.	Jarrett, Harry Bean	Pa.	Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																								
A.B. 1944, State University of Iowa	Iowa	Jarrett, Charles Harold	Va.	Jacobson, Lindsay Kay	Nev.	Jarrett, Harry Bean	Pa.	Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																												
Jacobson, Lindsay Kay	Nev.	Jarrett, Harry Bean	Pa.	Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																
Jacobson, Odd Thomas	N.D.	B.S. 1922, United States Naval Academy		A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																				
A.B. 1948, The George Washington University		M.S. 1929, Columbia University		Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																								
Jacobson, Wesley Cassel	Iowa	Jarvis, Albie Joseph	Mass.	A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																												
A.B. 1939, State University of Iowa		Jasch, Verlin Elmer	Ind.	Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																
Jacobstein, Harold	Pa.	A.B. 1949, The George Washington University		B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																				
B.S. in Ed. 1949, State Teachers College, Indiana, Pa.		Jasinowski, Elizabeth Jean	Va.	Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																								
Jacobus, Madalaine Anne	Ill.	Jaskiewicz, Edmund Michael	Conn.	A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																												
A.B. 1941, University of Illinois		B.S.E. 1947, University of Connecticut		Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																
Jacoby, Robert B.	Ohio	Jaskiewicz, Joseph Adam	N.J.	LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																				
LL.B. 1928, Ohio Wesleyan University		Jaskiewicz, Joseph Francis	Pa.	Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																								
Jacupke, Arlene Ann		A.B. 1949, The George Washington University		Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																												
Jackel, Georgie Marion	Nebr.	Jaskot, Catherine Ann	Vt.	A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																
A.B. 1948, Florida State University	Fla.	Jaskot, John Joseph	Pa.	Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																				
Jaschke, John Henry	D.C.	Jasper, Estelle Shirley	N.Y.	Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																								
Jaffe, Eli	Va.	Jasper, James Dudley	Va.	Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																												
Jaffe, Irving	Md.	Jasper, William	Calif.	A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																
A.B. 1948, New York University		A.B. 1947, University of California at Los Angeles		Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																				
Jaffe, Irving Stanley	N.Y.	A.M. 1949, University of Southern California		A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																								
A.B. 1945, University of Michigan		Jasper, William Ragland	Va.	Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																												
Jaffe, Sidney Abraham	N.J.	Jass, Andrew Edward	N.Y.	A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																
A.B. 1938, The George Washington University		Jaszczult, Thaddeus Peter	Va.	Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																				
Jagbandhansingh, Alvan Emerson	British West Indies	B.S. in E.E. 1939, Newark College of Engineering		Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																								
Jagoe, Armiger Louis, Jr.	D.C.	Jaynes, John Thomas	Kans.	Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																												
Jaimeses, John Joseph	D.C.	Jedrich, Joseph Stanley	Pa.	Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																
Jakes, Robert	Tenn.	Jeffers, Albert Lavern	Ind.	A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																				
A.B. 1928, Vanderbilt University		B.S. 1949, Evansville College		Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																								
Jakubowski, Hans Hermann	D.C.	Jeffers, John Cordell	Va.	James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																												
James, Festus Burrell	W.Va.	Jefferson, Jennie Marguerite	Va.	James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																
James, Frances Pauline	D.C.	Jefferson, Louis Wilson, Jr.	D.C.	James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																				
James, Gladys Elizabeth	Va.	Jefferson, William Douglas	D.C.	James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																								
James, Howard Victor	Md.	Jeffrey, Charles Thomas	D.C.	James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																												
James, Margaret Lucille	Va.	Jeffries, Albert Carmie, Jr.	D.C.	James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																
James, Mayola L.	Va.	Jeffries, Ardiith Elaine	D.C.	James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																				
James, Paul Marshall	D.C.	A.B. 1949, Mary Washington College		Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																								
Jameson, John Franklin	D.C.	Jeffries, Corinne Mary Fleger	Va.	Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																												
Jameochian, Hagop Herach	D.C.	A.B. 1945, Baldwin-Wallace College		A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																
A.B. 1949, Clark University	Mass.	Jeffries, John, Jr.	Va.	Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																				
Jamieson, James Yancy	D.C.	B.S. 1947, Harvard University		Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																								
Jamison, William Franklin	D.C.	Jelalian, Ashod	Mass.	Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																												
Jampel, David Morris	N.Y.	Jelling, Robert	D.C.	Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																																
Janik, Walter Joseph	D.C.	A.B. 1943, Brooklyn College		LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																																				
LL.B. 1947, Catholic University of America		A.M. 1949, American University				Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																																								
		Jelling, Winifred Morgan	D.C.			Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																																												
		Jemison, Dorothy Allen	Ga.			Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																																																
		Jenkel, Albert Arthur	Iowa			Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																																																				
		Jenkel, Martin John, Jr.	Iowa			Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																																																								
		Jenkins, Alice Blanche	D.C.			Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																																																												
		Jenkins, David Kay	Pa.			Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																																																																
		Jenkins, Ernest Joseph	D.C.																																																																																																																																																																																																																																																				



Jenkins, Kempton Boyce	Va.	Johnson, Clyde Daniel	Va.
A.B. 1948, Bowling Green State University		Johnson, Clyde George	Md.
Jenks, Loren Morgan, Jr.	Va.	Johnson, Daniel Lyle	W.Va.
Jennings, Barnard Fulton	Va.	A.B. 1948, Shepherd College	
B.S. 1948, University of Virginia		Johnson, Daniel Lynn	Md.
Jennings, Bonner Parnell	Va.	Johnson, Darrell Edward Holder	D.C.
Jennings, Floyd	Md.	Johnson, Donald Holmberg	Md.
Jennings, James Murray	D.C.	Johnson, Donald Lewis	S.D.
Jennings, Lucile Fern	D.C.	B.S. in Ch.E. 1947, Purdue University	
A.B. 1938, Michigan State College		Johnson, Dorothy Louise	Md.
Jennings, Marvin Edward, Jr.	Va.	Johnson, Douglas Richard	Va.
Jennings, Nancy Alice	Md.	Johnson, Edward Allen	Va.
A.B. 1949, The George Washington University		A.B. 1947, University of Richmond	Md.
Jennings, Nancy Lee	D.C.	Johnson, Edwin Joseph	Va.
Jennings, William A.	Tex.	Johnson, Elise Hill	Minn.
B.S. 1924, M.S. 1925, University of Arizona		Johnson, Elizabeth Mae	
Jenny, Albert	Va.	A.B. 1947, Carleton College	Md.
A.B. 1940, University of Pennsylvania		Johnson, Elizabeth True	
Jensen, Carl Aggerholm	Md.	B.S. 1943, Maryland State Teachers College, Salisbury	D.C.
Jensen, Dinnieaud Virginia	Md.	Johnson, Elma Elvera	D.C.
B.S. 1942, Wisconsin State Teachers College, La Crosse		Johnson, Elsie Nora	
Jensen, Jack Monsen	Md.	B.S. 1936, Wilson Teachers College	Va.
Jensen, Mabel Schauble	Mass.	Johnson, Ethel Irma	Md.
Jensen, Willis John	Wyo.	Johnson, Eva M.	
B.S. 1947, Pennsylvania State College		A.B. 1949, The George Washington University	Va.
Jentile, Ralph Francis	Pa.	Johnson, Everett Carl	W.Va.
Jentzen, Antoinette Eugenie	D.C.	Johnson, Francis William	Md.
Jeppson, Shirley Melvin	Utah	Johnson, Frank Tracy	D.C.
Jermyn, Eleanor Harriet	Mass.	Johnson, Geraldine Mary	
Jernberg, Dale Leonard	Md.	B.S. 1947, University of Minnesota	Nebr.
Jerome, Charles Joseph	N.Y.	Johnson, Helen Lillian	D.C.
Jessup, Gertrude May	D.C.	Johnson, Henry Edwin	D.C.
Jeter, William Tyree	Okla.	Johnson, Howard Hamilton, Jr.	
Jewell, Joan Lorey	N.Y.	A.B. 1948, The George Washington University	Va.
A.B. 1948, The George Washington University		Johnson, Howard Odin	
Jewell, Joseph Thomas	D.C.	B.S. in Ed. 1934, Wisconsin State Teachers College, Eau Claire	
Jewett, John Stanford	Md.	A.M. in Ed. 1948, The George Washington University	Colo.
B.S. 1948, Georgetown University		Johnson, Hugh Charles	N.C.
Jewett, Vivian Holland	D.C.	Johnson, James Arthur	Va.
Jimenez, Doris A.	Puerto Rico	Johnson, James Coombs	Va.
Jividen, Randolph Lane	W.Va.	Johnson, James Denton	Pa.
Jobe, Harrel Kent	Tex.	Johnson, James Edward	Md.
Jobe, Howard Lewis	N.C.	Johnson, James Walter	Va.
Jobson, Christine	D.C.	Johnson, Janice Mary	
Jockusch, Julius W., Jr.	Tex.	B.S. 1947, University of Nebraska	Va.
Joel, Clark	D.C.	Johnson, John	Va.
A.B. 1949, The George Washington University		Johnson, John Sterling	Md.
Joel, Lambert Savel	Pa.	Johnson, John Vincent	Iowa
A.B. 1949, The George Washington University		Johnson, Joyce Elizabeth	Md.
Johansen, John Edwin	Ala.	Johnson, Laura Clare	
Johansen, Robert Howard	Calif.	A.B. 1948, Swarthmore College	Kans.
Johler, Joseph Ralph	Md.	Johnson, Lauren Merle	Va.
A.B. 1941, American University		Johnson, Lee Reames	Minn.
John, Harry William	Minn.	Johnson, Leighton Eugene	
A.B. 1947, St. John's University		A.B. 1948, The George Washington University	Ohio
A.M. 1949, Georgetown University		Johnson, Leslie Addison	D.C.
Johnnes, Peretz William	Ohio	Johnson, Louis Earl	Va.
Johns, Benjamin Irving	Va.	Johnson, Louise Glass	D.C.
B.S. 1944, Hampden-Sydney College		Johnson, Margaret Elizabeth	Pa.
Johns, Clifford Cyrus, Jr.	D.C.	Johnson, Margaret Miriam	
Johns, Jessie M.	Pa.	B.S. in Ed. 1942, Pennsylvania State Teachers College, California	Ala.
Johnson, Andrew Robert	Md.	Johnson, Marion Meek	
Johnson, Ann Ostlund	D.C.	A.B. 1939, University of Alabama	Nebr.
Johnson, Bernard Lee	D.C.	Johnson, Marjorie Mae	
Johnson, Cecil Davis	Va.	A.B. 1949, Nebraska Wesleyan University	Md.
A.B. 1948, University of Kansas City		Johnson, Marjorie Pennington	
Johnson, Charles Christopher, Jr.	D.C.		



Johnson, Mary Kathleen	Pa.	Jones, Claggett Aloysius	D.C.
Johnson, Myles MacCrimmon	D.C.	Jones, Compton	D.C.
Johnson, Naomi	D.C.	Jones, Cullen Bryant, Jr.	D.C.
Johnson, Norton Steele	Md.	A.B. 1948, The George Washington University	
Johnson, Patricia Anne	Calif.	Jones, Darrell Lloyd	Tex.
Johnson, Patricia Gilmore	N.J.	Jones, David DeLong	Md.
Johnson, Paul Douglas	N.M.	B.S. 1937, Pennsylvania State College	
B.S. 1940, University of Southern California		Jones, David Macon	D.C.
Johnson, Paul John	Ill.	Jones, Doris Jeanne	Va.
Johnson, Peter Herbert	D.C.	Jones, Edwin Brooke	Tex.
A.B. 1948, The George Washington University		A.B. 1949, University of Texas	
Johnson, Ray Carl	Ala.	Jones, Ethel Beer	Va.
B.S. 1937, LL.B. 1939, University of Alabama		Jones, Everett Craig, Jr.	N.C.
LL.M. 1942, The George Washington University		Jones, Frank Pierce, Jr.	Tex.
Johnson, Ray Marshall	N.Y.	Jones, Gordon Welch	D.C.
Johnson, Richard Carl	Md.	Jones, Harold Llewellyn	D.C.
Johnson, Richard Cullen	D.C.	Jones, Harry Clay	Va.
Johnson, Robert Donald, Jr.	Va.	Jones, Harry Lee, Jr.	Mo.
Johnson, Robert Edward	Iowa	Jones, Helen Betchley	Va.
Johnson, Robert Edwin	Ohio	B.S. 1932, Syracuse University	
A.B. 1940, Ohio State University		Jones, Helen Rector	Va.
Johnson, Robert Glenn	N.Y.	B.S. in Ed. 1940, Madison College, Va.	
Johnson, Robert Sumner	Wis.	Jones, Helen Stuart	Va.
Johnson, Roy Arnold	Md.	B.S. 1936, Mary Washington College	
Johnson, Ruth Theodora	Minn.	Jones, Howard Richard, Jr.	D.C.
Johnson, Stephen M.	D.C.	A.B. 1949, Princeton University	
B.S. 1941, University of Alaska		Jones, Jack Clayton	Okla.
Johnson, Theodore Robert	D.C.	B.S. in Ch.E. 1939, Oklahoma Agricultural and Mechanical College	
Johnson, Victor Eric	Conn.	Jones, James Absalom	D.C.
Johnson, Victor Jerome	D.C.	Jones, James Frederick	Va.
Johnson, Virginia Mildred	D.C.	Jones, James Mitchell	D.C.
Johnson, Walter Benjamin, Jr.	D.C.	Jones, James Nelson	Md.
Johnson, Warren Benjamin, Jr.	D.C.	Jones, John Norvill	D.C.
Johnson, Wilda Elaine	Md.	Jones, John Wesley	Md.
Johnson, William Bowman	D.C.	Jones, Joseph Merryll	Ky.
Johnson, William Bridges, Jr.	Pa.	Jones, Katy Mae	Tex.
Johnson, William Bruce	D.C.	B.S. 1933, Stephen F. Austin State Teachers College	
Johnson, William Eugene	Iowa	M.Ed. 1946, Southern Methodist University	
Johnston, Doris Jean	Md.	Jones, Merriam Arthur	Va.
Johnston, James Bruce	Va.	A.B. 1933, University of North Dakota	
Johnston, Louise Farmer	Mich.	Jones, Nancy Gene	D.C.
Johnston, Marjorie Anne	D.C.	Jones, Nathan Eugene	D.C.
Johnston, Paul Thomas	D.C.	Jones, Norman Paul	D.C.
B.S.C. 1940, Creighton University	Nebr.	Jones, Robert	D.C.
Johnstone, Richard Charles	Va.	Jones, Robert Ellis	Va.
Johnstone, Elizabeth Caroline	D.C.	Jones, Robert Franks	N.J.
Johnstone, James Bruce	Mich.	Jones, Robert Howard	Va.
Johnstone, Lillian Caldwell	N.C.	Jones, Robert Hudson	Va.
Johnstone, Robert H.	Md.	B.S. 1929, University of Missouri	
Johnstone, William Henry	Mich.	M.S. 1933, Union College and University	
Joiner, Osceola Cofield	Va.	Jones, Robert John	Va.
B.S. 1940, Alabama State Teachers College, Florence		A.B. 1949, The George Washington University	
Jones, Ailsa Grierson	N.J.	Jones, Robert Kay	Va.
Jones, Allen Hughes	N.Y.	Jones, Robert Williams	D.C.
B.M.E. 1948, The George Washington University		Jones, Ruth Bowman	Va.
Jones, Anna Beth	Iowa	B.S. 1930, Madison College	
Jones, Benjamin Perry, Jr.	N.C.	Jones, Ruth Elsie	Tex.
Jones, Bernice Grace	Va.	A.B. 1940, Baylor University	
A.B. 1946, A.M. 1947, The George Washington University		Jones, Ruth Geneva	D.C.
Jones, Calvin Clark	D.C.	Jones, Shirley Marie	Va.
Jones, Carl Thomas	D.C.	Jones, Virginia Walton	Va.
Jones, Charles Clifford	Ark.	A.B. 1944, The George Washington University	
Jones, Chester Morley	Va.	Jones, Walter Warren	Ky.
B.S. in E.E. 1937, University of North Dakota		Jones, William McPheeters	Va.
		B.S. 1929, The Citadel	
		Jonscher, Bennett Graham	Va.
		Jonson, Carl Egerton	Va.



Jordan, Fannie Gillespie	D.C.	Kahn, Kalvin	Pa.
Jordan, George Sanford	D.C.	A.B. 1948, University of Pennsylvania	D.C.
Jordan, Robert Thomas	Maine	Kahn, Myer Bartel	
B.S. 1948, Georgetown University		B.S. 1938, University of Scranton	Pa.
Jordan, William McRae	N.C.	Kahn, Robert	
Jorgansen, Florence Gubler	D.C.	A.B. 1945, University of Pennsylvania	Md.
A.B. 1935, University of Utah		Kaiser, Donald Frederick	
Jorgenson, James Lewis	Va.	A.B. 1948, North Texas State Teachers College	
Jose, William III	D.C.	Kaiser, Jesse Albert	D.C.
Joseph, Louis Allan	D.C.	Kaiser, Stanley Mortimer	D.C.
Josephson, Gilbert C.	Md.	Kaiser, Stuart Berwin	D.C.
Joshi, Rajanikant Nilkanthrao	India	A.B. 1918, Harvard University	N.J.
Joslyn, Danforth	D.C.	Kait, Harry Carl	
Joura, Helen Marie	Iowa	B.S. 1928, Temple University	
Jovanovich, George Stephen	D.C.	LL.B. 1938, University of Newark	
LL.B. 1933, University of Belgrade, Yugoslavia		LL.M. 1949, The George Washington University	Mass.
Joy, Betty Ann	Va.	Kaitz, Hyman Benjamin	
Joy, Donald Eugene	D.C.	A.B. 1942, The George Washington University	D.C.
Joy, Helen Maxine	Va.	Kakalec, John	
Joy, Robert Allan	D.C.	A.B. 1949, The George Washington University	Md.
Joy, Robert Alvin	Nev.	Kalavski, Paul Z.	Md.
A.B. 1940, University of Nevada		A.B. 1933, Berea College	
Joyce, Hilda Levi	Va.	M.S. 1949, University of Maryland	Ky.
Joyce, Martha Raddcliffe	Mass.	Kalb, Vernon Frederic	
A.B. 1944, Wellesley College		B.S. 1947, University of Kentucky	D.C.
Joyner, Howell Caloway	D.C.	Kalfus, Ira	Pa.
Juarez, Joe Angel	Tex.	Kaliner, Jack Steven	Conn.
Jubien, Walter Louis	D.C.	Kalinowski, John Edward	N.Y.
Judd, Dean Burritt	Md.	Kallina, Beatrice Josephine	Ill.
Judd, Howard Galloway	D.C.	Kallis, Selma Gottlieb	
Judd, Norman Barry	Md.	A.B. 1922, A.M. 1924, Ph.D. 1927, University of Kansas	N.Y.
B.S. 1943, Springfield College		Kallman, Beatrice	
Judkins, Woodrow Wallis	D.C.	B.S. 1948, The George Washington University	Md.
Judson, Joseph	N.Y.	Kallmyer, Roy Leslie	Md.
Judy, Phyllis Drew	W.Va.	Kalman, Benjamin	N.J.
Julian, Dorothy Jean	Va.	Kalter, Arthur Martin	D.C.
A.B. 1949, Furman University		Kalvin, Paul Craig	
Julicher, Arthur Joseph	D.C.	A.B. 1948, The George Washington University	D.C.
Julien, Carl Alden	Oreg.	Kam, Oscar	
B.S. 1945, University of Washington		Kamecka, Maria Henrietta	Hawaii
M.S. 1947, University of Notre Dame		Kanemoto, Fred Isamu	N.Y.
Julisson, Mary Rose	D.C.	Kamen, Henry Theodore	N.J.
B.S. 1922, University of North Dakota		Kamikawa, Juichi	D.C.
Julius, Richard Friedli	D.C.	Kamm, Arthur Thorpe	
Jung, Lucile Margaret	Fla.	A.B. 1948, American University	Va.
Jungblut, Edward Wilmont	N.J.	Kan, Perry Harlan	N.Y.
Jungblut, Helen Odellia	N.J.	Kananack, Barbara Audrey	Mass.
Jungen, Leo John	Iowa	Kane, Daniel Raymond	Pa.
Junkin, George	Md.	Kane, Frank Michael	
Justement, Louis, Jr.	Md.	A.B. 1949, The George Washington University	N.Y.
Jylkka, Edward Walter	Mass.	Kane, Rosemary	S.C.
K			
Kabes, Lillian Esther	D.C.	Kanellos, Constan George	
Kabrich, Delmar, Jr.	Okla.	A.B. 1943, College of Charleston	Hawaii
Kaczmar, William	Pa.	A.M. 1948, Columbia University	
A.B. 1949, The George Washington University		Kanemoto, Shigetō	Va.
Kaden, Rita	N.J.	A.B. 1949, University of Hawaii	Minn.
Kadrovach, Dan George	Mich.	Kaneshiro, Constance Ann	D.C.
Kaffenberger, William Michael	Ill.	Kannenber, Myron Hollis	Conn.
Kahn, Asher Daniel	D.C.	Kantrowitz, Daniel George	N.J.
Kahn, Cathleen Louise	D.C.	Kantrowitz, Gerald	China
Kahn, Elizabeth	N.Y.	Kanze, Robert F.	Ohio
Kahn, Fritz Reiner	Md.	Kao, Laura Ke-Shan	N.Y.
A.B. 1948, The George Washington University		Kapitan, Frank James, Jr.	
Kahn, Howard	N.C.	Kaplan, Bertram W.	France
A.B. 1940, University of North Carolina		Kaplan, Doris Papillon	
Kahn, Irving	N.Y.		



Kaplan, George	N.Y.	Kassoff, Arthur Irving	N.Y.
Kaplan, Harold Irving	D.C.	A.B. 1946, The George Washington University	Wis.
B.S. 1942, University of Maine		Kasten, Marie Antoinette	Ill.
LL.B. 1948, Harvard University		A.B. 1908, A.M. 1911, University of Wisconsin	Minn.
Kaplan, Harry		Katalinich, Mary M.	Md.
A.B. 1948, The George Washington University		Kates, Raymond Charles	Minn.
Kaplan, Jay E.	N.Y.	Kath, Lloyd Louis	N.Y.
Kaplan, Louis Charles	Md.	Kator, Irving	N.Y.
A.B. 1934, Yale University		A.B. 1941, University of Michigan	N.Y.
LL.B. 1945, LL.M. 1948, Georgetown University		Katrishen, William	D.C.
Kaplan, Marcia Bry	Md.	B.S. 1948, Mississippi Southern College	N.Y.
A.B. 1946, University of Michigan		Katrivanos, James	N.Y.
Kaplan, Nathan	N.Y.	Katz, Elaine Loeuy	Pa.
B.S. 1939, College of the City of New York		Katz, Harry S.	N.Y.
Kaplan, Paul Harold	N.Y.	B.S. 1948, Bucknell University	N.Y.
Kapneck, Philip Raum	D.C.	Katz, Joseph P.	
Kappler, Charles Theodore	D.C.	A.B. 1939, College of the City of New York	
A.B. 1942, Yale University		J.D. 1948, The George Washington University	D.C.
Kapriva, Frank Louis	Va.	Katz, Julius	N.Y.
B.S. 1942, Wake Forest College		Katz, Julius Louis	Md.
Kapsianos, William George	D.C.	A.B. 1949, The George Washington University	D.C.
Kapuscinski, Wallace John	N.J.	Katz, Lawrence	Del.
Karagiorgos, Nicholas Demetrios	Md.	B.S. 1949, University of Denver	Md.
Karayianis, Konstantinos	D.C.	Katz, Leon	N.Y.
Karayianis, Nick John	D.C.	Katz, Morton Harry	N.Y.
Karazikas, Eleni Pericles	D.C.	Katz, Murray	
Karch, Ernest Joseph	Wyo.	B.Ch.E. 1947, College of the City of New York	D.C.
Karczmarczyk, Edward John	D.C.	Katz, Sara Levit	
Kardell, Frederick Lloyd	N.Y.	B.S. in Ed. 1939, University of Pennsylvania	Va.
Kardos, Alexander Thomas		Kauffman, Shirley Louise	Md.
B.S. in Eng. 1935, College of the City of New York		B.S. 1947, M.S. 1948, University of Chicago	Va.
Kardovich, Nicholas Michael	N.Y.	Kaufman, Herbert	Tex.
B.C.E. 1942, College of the City of New York		Kaufman, Lillie	
Kardy, Leonard Thomas	D.C.	Kaufman, Rae Ann	Conn.
LL.B. 1949, The George Washington University		A.B. 1950, Texas State College for Women	Ohio
Kardys, Helen Elizabeth	N.Y.	Kaufman, Sidney	D.C.
Karelis, George Andrew	D.C.	Kause, Charlotte Ann	N.J.
Karimi, Ghulam Ali	Afghanistan	Kavanagh, Ruth Jean	N.Y.
Karlene, Michael M.	N.Y.	Kavlick, Raymond Paul	
A.B. 1933, University of Rochester		Kavruck, Samuel	
Karlin, Jack Irwin	N.Y.	B.S. 1937, M.S. 1939, College of the City of New York	Hawaii
A.B. 1941, The George Washington University		Kawahara, Thomas Tomokazu	
Karmel, Charles Lewis	D.C.	A.B. 1940, University of California	Va.
Karns, Ross Samuel	Va.	LL.B. 1945, De Paul University	N.Y.
Karousatas, Fotis Nickolas	D.C.	Kay, Harold Henry	D.C.
Karp, Jeanette	Md.	Kay, Joseph	N.J.
Karr, Lyman Wallace	Wis.	Kay, Marvin Leonard	D.C.
Karras, James Christian	Fla.	Kaye, Alfred Howard	D.C.
A.B. 1949, University of Michigan		Kaye, Gloria Jean	Pa.
Karsted, Jessie Walton	Va.	Kaye, Norman	N.D.
Karstens, Ruth Flora	Md.	Kaye, Robert Adolph	
Karvatt, Robert Charles	Pa.	A.B. 1948, The George Washington University	Md.
Kaschak, John Michael	Mo.	Kayhoe, Donald Ellsworth	
Kasius, Richard Volker		A.B. 1946, The George Washington University	S.D.
A.B. 1941, University of Chicago		Kayser, Florence Kathleen	D.C.
M.P.H. 1948, Johns Hopkins University		Kayser, Marilyn Elaine	D.C.
Kaslow, Herbert	D.C.	Kayson, David	Ill.
Kasprizyk, Laura Joan	N.J.	Kazinauskas, Stanley	D.C.
Kassalow, Sylvia Dicker	Va.	Keahey, William	D.C.
A.B. 1945, The George Washington University		Keane, Thomas Thomas, Jr.	Va.
Kassebrum, Robert Gray	Va.	Kearin, Helen Marcia	
Kassenbrock, John Donald	Calif.		
A.B. 1949, University of California			



Kearney, James Arnold	D.C.	Kelley, Archie Parmelee	Idaho
B.S.S. 1949, Georgetown University		B.S. 1941, United States Naval Academy	
Kearney, Robert Thomas	Colo.	M.S. 1946, Massachusetts Institute of Technology	D.C.
Kearney, William Robert	N.J.	Kelley, Charles William	D.C.
Kearns, Thelma Herndon	W.Va.	Kelley, David Philip	D.C.
Kearny, Edmonia Catherine	D.C.	B.S. in E.E. 1949, Lehigh University	Mich.
Keating, Mary Dolores	D.C.	Kelley, Frank William	Md.
A.B. 1943, The George Washington University		Kelley, George Ridgely	Va.
Keating, Robert Gordon	Va.	Kelley, James John Joseph	Calif.
Keaveney, Donald Charlse	Mass.	Kelley, Josephine Ward	
B.S. 1942, Bowdoin College		A.B. 1942, University of California	D.C.
Keck, Donald Leroy	Ohio	Kelley, Wallace Ralph	
Keck, Edwin William	Pa.	A.B. 1948, American University	Va.
B.S. in Ed. 1948, Temple University		Kellison, John Ray	
Kee, Richard Moy	D.C.	B.S. 1941, University of Richmond	Md.
Kee, Robert	D.C.	Kellogg, Ira Newell, Jr.	
Keebler, John Kent	Md.	A.B. 1939, Indiana University	Pa.
Keebler, Josie Elise	Md.	Kelly, Belle Weinberg	N.J.
Keefe, Frances Sarah	W.Va.	Kelly, Bernard William	Md.
Keeler, Hubert George	D.C.	Kelly, Catherine Burton	
Keegan, Patricia M.	D.C.	A.B. 1939, Smith College	N.Y.
Keeler, Louis Nelson	N.Y.	Kelly, Daniel Francis	D.C.
Keeler, Owen Floyd, Jr.	Va.	Kelly, Dee J.	Pa.
B.S. 1942, United States Naval Academy		Kelly, Edward Joseph	
Keen, Joe Gibson	Tenn.	B.S. 1939, Drexel Institute of Technology	Ill.
Keen, Owen Allen	Va.	Kelly, Edward Thomas	Md.
Keenan, James Wilbert	N.Y.	Kelly, Elisabeth Claudia	
B.B.A. 1941, Manhattan College		B.S. 1941, Pennsylvania State Teachers College, Indiana	D.C.
Keenan, Raymond John	Va.	Kelly, Eugenia Marie	Va.
Keene, Elizabeth Ruth	N.Y.	Kelly, Frances Anne	
Keene, Juanita	D.C.	A.B. 1944, University of Chicago	D.C.
Keener, Wayne Mertz	Pa.	Kelly, Francis Keith	
B.S. 1949, Georgetown University		A.B. 1948, The George Washington University	Pa.
Keery, William John	Md.	Kelly, Harry Joseph	Va.
A.B. 1949, Catholic University of America		Kelly, Jacqueline Patricia	D.C.
Keesey, Marjorie Pennell	D.C.	Kelly, John Joseph	Md.
A.B. 1943, University of Pennsylvania		Kelly, John Leo	
Keesey, Truman Joseph	Md.	B.S. 1947, Georgetown University	Ill.
A.B. 1934, The George Washington University		Kelly, Kathleen Ann	Kans.
Keesling, Harold Charles, Jr.	D.C.	Kelly, Kenneth Max	
Keeter, Charles Pace	Va.	A.B. 1947, Municipal University of Wichita	D.C.
Keeter, Daniel Leavy	D.C.	Kelly, Margaret G.	
Kehoe, Russell Patrick, Jr.	D.C.	B.S. 1941, M.S. 1945, The George Washington University	Minn.
Kehoe, Russell Patrick, Sr.	D.C.	Kelly, Philip Thomas	Va.
A.B. 1914, Hanover College		Kelly, Thomas Henry	Va.
Keifert, Robert Noah	Wis.	Kelly, William Daniel	Md.
Keiffer, Sebert Hector	Calif.	Kelsey, David	
Keil, Armin Theodore	Conn.	A.B. 1942, University of Rochester	D.C.
Keister, Richard Edwin III	D.C.	Kemeny, Elizabeth M.	
Keith, Millard	Mo.	A.B. 1940, Occidental College	D.C.
Kekich, Nicholas	Pa.	Kemeny, George Siegfried	Md.
Kellahin, Josephine Dorothy	Md.	Kemer, Frank Conrad	
B.S. in Ed. 1930, Wittenberg College		A.B. 1949, The George Washington University	Va.
Kellam, Donald Swift, Jr.	Va.	Kemmerly, June Dietsch	D.C.
Kelleggan, Gordon Thomas	N.Y.	Kemmerly, Robert Joseph	D.C.
Kelleher, Kenneth Patrick	N.Y.	Kemp, Gordon Glenwood	Pa.
Kelleher, William Vincent	Mass.	Kemp, Henry Werner	Ga.
B.S. 1949, Tufts College		Kemp, Irene Rakestraw	Ga.
Keller, Glenna Isabella	Ohio	Kemp, John Gordon	Md.
Keller, John Christian	Pa.	Kemp, William George	
Keller, Morton	N.Y.	A.B. 1949, The George Washington University	Ill.
B.Ch.E. 1946, College of the City of New York		Kenady, Harold William	Md.
Keller, Raymond Aloysius	Mo.	Kendall, Frank Herbert, Jr.	D.C.
Keller, Ruth Miller	Va.	Kendall, Roberta Marie	D.C.
A.M. 1913, Ohio State University		Kendrick, Elsie Lowe	
Keller, Stewart Theodore	N.Y.		
Keller, Thomas Dixon	D.C.		



Kendrick, John Whitefield A.B. 1937, A.M. 1939, University of North Carolina	D.C.	Kershenbaum, June Bernice	D.C.
Kendrick, Loreine York	D.C.	Kerstein, Edwin H.	D.C.
Kendrick, Thomas William, Jr.	N.C.	Kerwin, Timothy Danial	Md.
Kenkel, John Bonaventure	Md.	Keshishian, Harold Mark	D.C.
Kenkel, Mary Teresa	Md.	Keshishian, James Mark	D.C.
Kenlan, Richard James	Va.	Keshishian, John Mark	Md.
Kennedy, Alton Oliver	Va.	Keskinen, Eero John	D.C.
Kennedy, Arthur Wallace	N.J.	Kessel, Roy Franklin	W.Va.
Kennedy, Claire Alvin, Jr.	D.C.	A.B. 1940, Fairmont State College	
Kennedy, Donald George	D.C.	A.M. 1949, The George Washington University	
Kennedy, Gordon, Jr.	D.C.	Kessell, Laura Maude	D.C.
Kennedy, Harold Grant	D.C.	B.S. 1940, University of Minnesota	
Kennedy, James Anthony	Tex.	A.M. 1941, Columbia University	
Kennedy, James Jarvis	Calif.	Kessinger, Charles Daniel	La.
Kennedy, James Joseph	Va.	Kessler, Gunther Karl	D.C.
Kennedy, Joseph Bernard, Jr.	D.C.	Kessler, Virginia Hope	D.C.
A.B. 1947, LL.B. 1949, The George Washington University	Va.	B.S. 1948, The George Washington University	
Kennedy, Oliver	D.C.	Ketner, William Harry	Pa.
Kennedy, Robert Joseph	D.C.	Kettl, Howard Eugene	Pa.
Kennel, John Maurice	Ohio	Kettles, Harry William	Ga.
A.B. 1948, Miami University		Kevan, Robert Andrews	Va.
Kennelly, Joseph Gerard	N.Y.	Keyes, Thomas Edward	Va.
Kennedy, John Henry	Pa.	Keys, Carlton Albert	D.C.
Kenny, Katherine Jane	Md.	Keys, Zella Cox	Va.
B.S. 1940, University of Maryland		Keyser, Encil Glen	Ohio
Kenny, Rachel Rebecca	D.C.	Keyser, Hampson Miller	Va.
Kent, Arthur Peter	Va.	Keyser, Rhodeia Marcia	D.C.
B.S. 1941, The George Washington University		Khan, Mohammad Karanattulla	India
Kent, Charles James, Jr.	Va.	Kibble, Blanche Irene	Colo.
Kent, Jack Howard	Fla.	Kibler, Godfrey Lawrence	S.D.
Kent, John Louis	Md.	A.B. 1933, A.M. 1944, The George Washington University	
Kent, Perrin Aloysius	Mo.	Kick, Frank Pierce	Va.
A.B. 1941, The George Washington University		Kiczales, Adolphe Charles	D.C.
Kent, Robert Earl	Mo.	Kidd, Marjorie	D.C.
A.B. 1949, University of Missouri		Kidwell, Carroll Walton	Va.
Kent, Stephen Garland	Va.	Kidwell, Donald Leslie	Md.
Kenyon, Albert Prentice	Va.	Kidwell, Jack Dawson	Va.
A.B. 1929, Milton College		Kidwell, Robert Riffle	Md.
A.M. 1936, Columbia University		Kidwell, Stanley Slack, Jr.	Va.
Kenyon, Daisy Georgette	Belgium	Kiechel, Walter, Jr.	Nebr.
Kenyon, Nathaniel Colver	Okla.	A.B. 1941, University of Nebraska	
Kerekes, Richard Karl	D.C.	LL.B. 1949, Yale University	
Kerish, Burton	D.C.	Kieler, Carl Joseph	D.C.
Kern, John Jerome	D.C.	Kientz, Ernest Joseph, Jr.	D.C.
A.B. 1949, Catholic University of America		Kier, William Ralph	D.C.
Kern, Kenneth Jay	N.Y.	B.S. 1940, Pennsylvania State Teachers College, Indiana	
Kern, Mary Katharine	Va.	Kiernan, Jean Camille	D.C.
A.B. 1932, Goucher College		Kiernan, Robert James	D.C.
A.M. 1949, Duke University		Kietur, John Paul	N.Y.
Kern, Tempie Christine	Va.	Kilburne, Richard Francis	Va.
Kerr, Basil John	Wash.	A.B. 1948, The George Washington University	
B.S. 1949, Georgetown University		Kilby, Thomas Curran	Md.
Kerr, Frederic Gerard	D.C.	Kilday, Marthada Vaughn	Ind.
Kerr, Graham Stickley	D.C.	Kildea, Jack Harvey	Wash.
Kerr, Horace Eskew	D.C.	Kilgour, Henry Bradley, Jr.	Va.
A.B. 1949, The George Washington University		B.S. in M.E., B.S. in E.E. 1948, Virginia Polytechnic Institute	
Kerr, Lucille Minton	D.C.	Kilheffer, Richard Rhoads	Va.
Kerr, Norma Constance	N.J.	A.B. 1948, Pennsylvania State College	
Kerr, Richard Haller	W.Va.	Killian, Marcella Mary	Wis.
A.B. 1948, West Virginia University		Killian, Rosemary	Calif.
Kerr, Roger Theodore	Va.	Killian, Thomas Joseph	D.C.
Kerr, Thomas Moore, Jr.	D.C.	B.S., M.S. 1926, Massachusetts Institute of Technology	
A.B. 1940, Lafayette College	Pa.	A.M. 1927, Ph.D. 1929, Princeton University	
Kershaw, John A.			



Killingsworth, Ted Eugene, Jr. B.M.E., 1943, Clemson Agricultural College LL.B. 1949, University of Utah	Utah	Kinney, David Bowen A.B. 1943, Alma College	Va.
Kilpatrick, Grace Jane	Ohio	Kinney, Robert Maurice	Va.
Kim, Grace Mookwangwha	Hawaii	Kinsel, Alan Edson A.B. 1948, The George Washington University	Va.
Kimball, Orrin Belvin A.B. 1949, The George Washington University	N.C.	Kinsel, James Nolan B.S. 1943, University of Maryland	D.C.
Kimball, Robert Elwood B.E. 1939, Johns Hopkins University M.S. 1948, Massachusetts Institute of Technology	Va.	Kinsey, William Morrison B.S. 1935, Temple University	Pa.
Kimbrough, Mary Jane	D.C.	Kinsman, Anne Moore	Pa.
Kimbrough, Newman Willingham, Jr.	Ala.	Kinsman, Robert Gordon	D.C.
Kimche, Aaron	D.C.	Kintsfather, David Peter	Pa.
Kimling, Robert Harry	Tex.	Kinzer, James Brooks B.S. 1948, Pennsylvania State College	N.J.
Kimmel, Charles Thomas	D.C.	Kip, Ruloff Frederic, Jr. B.S.E. 1943, Princeton University	D.C.
Kimmel, Norton Richard	Md.	Kipnis, Dolores Etta	Va.
Kimmel, Vivyan Mary	D.C.	Kipper, Henry Haakon	Va.
Kimmerling, Richard William	D.C.	Kipps, John William	Conn.
King, Adaline Chase	Mass.	Kirby, Edward Francis, Jr. Ph.B. 1937, Providence College	Va.
King, Arthur Carl B.S. 1940, Georgetown University	Conn.	Kirby, Ernest Calvin	D.C.
King, Betty Davis	D.C.	Kirby, Homer Hugh	Tenn.
King, Carolyn Jean	Va.	Kirby, John Gildersleeve	Ala.
King, Carolyn Zimmerman A.B. 1943, Mount Holyoke College	Va.	Kirby, Taylor Herman A.B. 1949, Birmingham-Southern College	D.C.
King, Carpenter Earle	S.C.	Kirch, Patricia Ann	Md.
King, Edward George	Md.	Kirchner, Francis Carlyle B.S. 1948, The George Washington University	Va.
King, Elizabeth Rankin	D.C.	Kirchner, Theodore Edmond	Wash.
King, Elvina Frances	N.Y.	Kirk, Charles Gilbert A.B. 1931, University of Washington	D.C.
King, Ernest Lee	Ind.	Kirk, Gerald Achilles	D.C.
King, Ethel Virginia Anne	Md.	Kirk, John Edwin	D.C.
King, Frank Wilson	Va.	Kirk, Michael James	Ohio
King, Glenn Richard	Md.	Kirkagacioglu, Ali Avni	Calif.
King, Henri Hien-Ping A.B. 1948, Gettysburg College	Va.	Kirkbride, Pennell Churchman A.B. 1947, Princeton University	W.Va.
King, Harriet S.	Md.	Kirker, Earl Richard A.B. 1949, Marshall College	Va.
King, Horace Leon, Jr.	Pa.	Kirkland, Robert Carey	Md.
King, James Cecil A.B. 1949, The George Washington University	Pa.	Kirkman, Albert Gwinn, Sr. B.S. 1927, Virginia Polytechnic Institute	D.C.
King, Joan Beverly	Pa.	Kirkness, Byron Edward	Md.
King, John Snyder	Va.	Kirkpatrick, Andrew Hollister	Md.
King, John Walter, Jr.	Md.	Kirkpatrick, Bernard Joseph	Ohio
King, Joseph Frederick	D.C.	Kirkpatrick, Charles Albert	
King, Morton Lionel	D.C.	Kirkpatrick, James Francis B.S. 1948, Ohio State University	Md.
King, Myldred Martha	Va.	Kirkpatrick-Howat, Lauraine E.	Md.
King, Nathan Russell	Md.	Kirley, Peter Herbert	Pa.
King, Pericles	Va.	Kirsch, Gregory Donald	D.C.
King, Phillip M.	N.C.	Kirsch, Martin Joseph	D.C.
King, Quentin Scott	D.C.	Kirshbaum, Amiel B.S. 1937, University of Maryland	D.C.
King, Reta Marie A.B. 1925, West Virginia Wesleyan College	Pa.	Kirshner, Janet M.	Calif.
King, Richard Francis A.M. 1949, The George Washington University	D.C.	Kirsten, Sidney Leonard	D.C.
King, Richard Paul	Pa.	Kitagawa, Arthur Saburo	
King, Robert Erwin	Va.	Kitchen, Jeffrey Coleman B.S. 1943, University of Oregon	Gu.
King, Ruth Evelyn B.S. 1932, LL.B. 1935, University of South Dakota	Ohio	Kitchens, William Hansel	D.C.
King, William Alvin	D.C.	Kitsoulis, Michael Thomas	Ill.
King, William Bruce	D.C.	Kittell, Lawrence Henry	Miss.
Kingsbury, James Calvin	D.C.	Kittle, John Lewis	Md.
Kingsley, Paul L. B.S. 1937, Northwestern University A.M. 1940, University of California at Los Angeles	Md.	Kitts, Louise Melissa	Mass.
Kinmonth, Raymond Arnold, Jr.	Mass.	Kitts, Willard Frederick A.B. 1942, Amherst College	



Kivitz, Murray Abraham	N.J.	Knight, Merrill Donaldson III	Va.
B.S. 1949, New York University		Knighton, Herbert Vincent	Md.
Kizler, John Willis	Tex.	Knighton, Miriam Janis	Va.
B.S. 1949, Northwestern University		B.S. 1948, College of William and Mary	
Klaasse, Robert Allen	Mich.	Knoblock, Frank Samuel	Va.
Klafter, Leonard	N.J.	Knoph, Herman Joseph	D.C.
Klajbor, Dorothea M.	N.Y.	Knopp, Arthur Maxwell	D.C.
Klanderman, Mary Josephine	Va.	Knopp, Edna	N.Y.
Klapper, Howard Jerome	N.Y.	A.B. 1943, Brooklyn College	
Klavan, Stanley	D.C.	Knott, Barbara Elisabeth	Va.
Kleh, Thomas Robert	Md.	Knott, Donald LaVerne	Calif.
Klein, David Mendel	D.C.	Knott, Lucille	D.C.
Klein, Ernest Joseph	D.C.	Knotts, William Woodrow	Ill.
Klein, Frederick Nelson, Jr.	Mich.	Knowles, Edward William	Mass.
Klein, George Ralph	Mass.	Knowles, Myles Henry	D.C.
Klein, John Richard	Md.	A.B. 1949, Michigan State College	
Klein, Joseph Sigmund	D.C.	Knowlton, Norma Edith	Iowa
Klein, Leonard Adam	D.C.	Knox, David Kaywin	Va.
Klein, Morris	D.C.	Knox, Robert Ormiston, Jr.	D.C.
Klein, Robert M.	Ohio	A.B. 1947, The George Washington University	
A.B. 1949, The George Washington University		Koach, Joseph Lewis	Ohio
Klein, Shirley	Mich.	A.B. 1949, The George Washington University	
Klein, William Joseph	N.Y.	Koback, John Merriam	Md.
Kleinhenn, Jean Catherine	D.C.	Koberg, Allison James	N.Y.
Kleitz, Julius Matthew	N.Y.	Koblentz, Charles	Md.
Klepak, Philip Harold	Va.	A.B. 1939, Central YMCA College, Chicago	
Kley, Frank Carl, Jr.	Md.	Koch, Dorothy Jane	D.C.
B.S. 1948, The George Washington University		Kocharian, Edward Moses	Iran
Kliegel, George John	D.C.	Koehler, Joseph Thomas	D.C.
Klieger, Jean Louise	Va.	Koenig, Janice Louise	Va.
Klieger, Walter Aaron	Va.	A.B. 1947, Pennsylvania State College	
A.B. 1948, The George Washington University		Koenig, Joseph William, Jr.	D.C.
Klika, Raymond Riggs	Ohio	Koenig, Marguerite Gordon	Va.
Kline, Beatrice Rhoda	D.C.	Koenig, Mary Beth	Va.
Kline, Beverly	D.C.	Koenig, William Edward	D.C.
A.B. 1948, Ursuline College, La.		Koenigsberger, Charles, Jr.	Minn.
Kline, Elizabeth Anne	Md.	Koepeke, Milton Elwood	Md.
Kline, Frederick Elmer, Jr.	Va.	Koester, Edwin Howard	Conn.
Kline, Harold Edward	D.C.	B.S. 1947, United States Naval Academy	
Kline, Ira	N.J.	Koester, Richard Eugene	D.C.
B.S. 1948, American University		Kogan, Marvin	Ill.
Kline, James Frederick	D.C.	A.B. 1948, A.M. 1949, University of Illinois	
Kline, Paul Arthur	D.C.	Koh, Byung Choll	Korea
Kline, Ralph Henry	Pa.	Koh, Ruby B.	Oreg.
Kline, Sarah Lottie	D.C.	Kohloss, Frederick Henry	D.C.
Klipple, Mary Jane	Colo.	B.S. in M.E. 1943, University of Maryland	
A.B. 1946, The George Washington University		Kohmann, William Alexander	Wash.
Klitzman, Maurice H.	Ohio	A.B. 1949, Southern Methodist University	
B.S. in M.E. 1948, Purdue University		Kohnen, Harold Albert	Ky.
Klonowski, Bernard Peter	N.Y.	B.S. 1949, Georgetown University	
Klonowski, Mary Elizabeth	Pa.	Kojoyian, Aredis Vahan	Mass.
Klosternann, Wolfgang Ekart	D.C.	Kokulis, Paul Nicholas	N.H.
Klodahl, Gordon Jacob	Ill.	B.S. in Ch.E. 1944, Worcester Polytechnic Institute	
Klucz, Vincent dePaul	Ind.	Kolb, Denis Frederick	Md.
Kmech, Maria	Va.	Kolb, Karl Philip	D.C.
Knapp, Harlan Howard, Jr.	N.Y.	Kolb, Raymond Charles	Va.
Knapp, Robert Duane, Jr.	D.C.	Kolb, Robert Warren	D.C.
A.B. 1948, The George Washington University		B.S. 1941, University of Maryland	
Knecht, Robert William	N.Y.	Kolinchak, Michael	Conn.
B.S. 1949, Union College and University		Kolkedy, Joseph George	Ohio
Kneisler, James Robert	Kans.	Kolker, Beverly	D.C.
B.S. 1949, Georgetown University	D.C.	Kolker, Irvin	D.C.
Knies, Lucie Esther	Pa.	Koller, Eugene Sterling	Pa.
Knight, Anna Flynt	Miss.	Kollmeyer, Herman Richard	D.C.
A.B. 1938, Mississippi State College for Women			



Kolodny, Joseph George	D.C.	Koutoulakos, Louis	Va.
A.B. 1935, Harvard University		A.B. 1949, The George Washington University	
Kolonia, Peter, Jr.	D.C.	Koutsandreas, Peter Dionysius	D.C.
Kolovic, Lilliana	Yugoslavia	B.C.E. 1948, The George Washington University	D.C.
Koltovsky, Lillian Ruth	N.Y.	Kouzes, Howard	Va.
Komai, Dan	D.C.	Kouzes, Tom	
A.B. 1938, University of California at Los Angeles		A.B. 1949, The George Washington University	D.C.
Komito, Milton Feldman	Ohio	Kouznetsoff, Nicolas E.	Pa.
Komito, Renee Freiburger	Ohio	Kovaleski, Jeannie Julia	Conn.
Konhauer, Jerome	N.Y.	Kowalski, Fred Herman	Pa.
Konick, Bernard	N.Y.	Kowalski, Walter Donald	N.H.
B.S. 1948, Brooklyn College		Koyiades, Gregory N.	D.C.
Konold, William George	D.C.	Kozak, Walter William	Pa.
B.E.E. 1949, Cornell University		Kozel, Alexander	Pa.
Koo, Ying-chang Anthony	Md.	Koziski, William	Ill.
A.B. 1940, St. John's University, China		Kozlowski, Joseph John	Pa.
M.S. 1941, University of Illinois		Kozlowski, Joseph Paul	Md.
A.M., Ph.D. 1946, Harvard University		Kraemer, Thaddeus Charles	Va.
Koogle, George Grayson, Jr.	Va.	Kraemer, William F.	
Koorman, William, Jr.	Minn.	A.B. 1932, University of Delaware	Md.
Koons, David Anthony	Pa.	Kraft, Lester	
Koons, George Hill	D.C.	A.B. 1948, University of Maryland	D.C.
Koons, Robert Aaron, Jr.	Pa.	Krajick, John Joseph	Va.
Koons, Walter Benjamin	Pa.	Krakow, Morton Joseph	Va.
Koonts, Robert Henry	N.C.	Kraller, John Edward	D.C.
B.S. 1949, University of North Carolina		Kramer, Carl Aaron	D.C.
Koosis, Isola Angela	Va.	Kramer, David Russell	N.Y.
A.B. 1943, The George Washington University		Kramer, Joshua	Va.
Kooy, Herman Peter	N.J.	Kramer, Marvin Lewis	D.C.
Kopacka, Lorraine Mae	Ohio	Kramer, Norman Clifford	
Kopek, John Longin	N.Y.	B.S. 1948, The Citadel	Va.
Kopfman, Thomas Vincent	D.C.	Kramish, Arvin Morris	
Koplin, Allen Atlas	D.C.	A.B. 1947, A.M. 1949, University of Denver	D.C.
Koplovitz, Rose	Pa.	Kranarcy, Julia Helen	Pa.
Kopp, Paul Joseph	Va.	Krasley, Paul Albert	D.C.
A.B. 1932, Lehigh University		Krasny, John Friedrich	
A.M. 1933, Duke University		B.S. 1948, University of Denver	Ohio
Koppelman, Irvin Jerome	Va.	Kratt, George Christian	Md.
Koppelon, Florence	Md.	Kraus, Harriet Hill	Va.
Kordish, Joseph Edward	D.C.	Kraus, Robert John	Conn.
Koren, Gerd Elise	Norway	Kraussman, William James	Ill.
Korenblatt, Martin A.	N.Y.	B.S. 1949, Georgetown University	D.C.
Korff, James Leeroy	Va.	Kraut, Joseph William	
Korkmas, Joseph Kalell	Tex.	Kraut, Sylvester Gregory	
Korn, Norman	N.Y.	A.B. 1949, Georgetown University	Md.
Korn, Seymour	N.Y.	Kravetz, Herman	Oreg.
Kornblatt, Julius	N.Y.	Krebs, Frances Jeanne	
Kornhauser, Alvin	D.C.	B.S. 1948, University of Oregon	D.C.
Korostoff, Bernard	N.Y.	Krebs, Henry Charles	
Kortman, Cecil M.	Tex.	A.B. 1949, The George Washington University	D.C.
Koshkin, Lona McNeill	Ala.	Kreek, Louis Francis, Jr.	
Kosmerl, Alice Frances	Ohio	B.S. 1948, Massachusetts Institute of Technology	Minn.
A.B. 1947, Seton Hill College		Krefting, James Emmett	Ohio
A.M. 1948, Ohio University		Krehbiel, Mary Lou	
Kost, Marilyn Helen	Mo.	A.B. 1946, The George Washington University	Md.
Kostelic, Albert Anthony	Colo.	Kremen, Jerome	Calif.
A.B. 1949, Western State College of Colorado		A.B. 1948, Johns Hopkins University	
Koster, Teresa Mary	D.C.	Kremer, Harry Darwin	
Kostik, Peter James	Ohio	B.S. 1937, University of Kentucky	D.C.
A.B. 1949, The George Washington University		Krentzlin, Julie Anita	Md.
Kostin, Nina J.	D.C.	Kressley, Clement D. J.	Va.
Kotarski, Christine Ann	Mich.	Krichmar, Robert Lawrence	D.C.
Kotz, Herbert Louis	N.Y.	A.B. 1943, Boston University	
Kouri, Mary Ann		Krick, Lillian	
A.B. 1946, Columbia University		B.S. in Mus. 1933, University of Illinois	
Koury, Enver Moosa	Lebanon		
Koustenis, Harry George	Ohio		







Lacombe, Charles Herbert	D.C.	Lambros, Veneta Virginia	Md.
Lacombe, Harold	D.C.	B.S. 1941, Maryland State Teachers	
Lacovara, Nicholas John	N.J.	College, Towson	
LaCovis, Mary Anne	D.C.	Lamkin, James Cecil, Jr.	Miss.
Lacy, Patricia Ann	Va.	B.S. 1948, The George Washington	
Ladd, Culver Sprogle, Jr.	Md.	University	Md.
Ladisky, Bernice Edythe	N.Y.	Lamore, Donald Hart	
Ladne, Harry	N.J.	A.B. 1948, University of Maryland	D.C.
Lafferty, Frances Hazel	Del.	Lamott, Dorothy Wyles	W.Va.
Lafferty, Jerry Dean	Calif.	Lamp, E. Jean	Md.
Laffey, Cyril Joseph	Md.	Lamphiear, Donald E.	Md.
A.B. 1949, The George Washington		Lamson-Scribner, Mercy Dees	D.C.
University		Lanagan, William Henry, Jr.	Fla.
Laffin, Edward John	Calif.	Lancaster, Blake Paul	Miss.
Laffin, Mark William	D.C.	Lancaster, R. Kent	
Lafotis, Nicholas	Mass.	B.S. 1948, Mississippi State College	Md.
LaFleur, Arlene Mary	N.Y.	Lancaster, Robert E., Jr.	D.C.
A.B. 1949, University of Buffalo		Lanckton, Myrtle Ann	Va.
LaFrance, Anna Egan	N.J.	Landau, Morton	
A.B. 1948, The George Washington		A.B. 1947, The George Washington	N.Y.
University		University	
LaFrank, Joan Tagliavia	Va.	Landau, Sherman	
A.B. 1938, University of Pittsburgh		B.S.S. 1948, College of the City of	N.Y.
Lagarde, William Joseph	Va.	New York	Ga.
Lagather, Robert Bosco	Minn.	Landen, Richard Magnus	
Lagerquist, Walter Waldruff	N.Y.	Lander, Miriam Jones	
A.B. 1949, The George Washington		A.B. 1935, University of South	Va.
University		Carolina	
Lagomarcino, Paul Donald	Ill.	Landes, Hazel Cline	
A.B. 1948, State University of Iowa		B.S. 1939, Madison College	Puerto Rico
LL.B. 1949, The George Washington		Landing-Miranda, Jorge Luis	
University		A.B. 1949, Florida Southern College	Md.
Lagory, Richard Marion	D.C.	Landis, Harry Campbell	D.C.
Lahey, Patricia Ann	Md.	Landis, Joseph Winey	Va.
Lahm, Robert John	Pa.	Landolt, Raymond Eugene	D.C.
Laine, Hugh Carter	Va.	Landon, Gladys King	Md.
Laine, Roland Oscar	Va.	Landry, Sara Yvonne	Fla.
Lainof, Milton	N.J.	Landsman, Helen Ruth	D.C.
Lainof, Robert Ivan	Va.	Landsman, Louis	Va.
B.S. 1939, University of North		Landsman, Robert Samuel	D.C.
Carolina		Landsman, Zelda Rosen	Tenn.
LaLande, Allen Lee	Tex.	Lane, Dalton Creed	
Lally, Paul Thomas	Pa.	A.B. 1947, Berea College	D.C.
Lalush, Basil	Pa.	Lane, Elizabeth Christine	Va.
B.E.E. 1949, Catholic University of		Lane, Elizabeth Mary	D.C.
America		Lane, Elizabeth Walker	D.C.
LaMacchia, Frank Richard	Md.	Lane, Francis Edward	Md.
A.B. 1945, The George Washington		Lane, Jeremiah Michael	D.C.
University		Lane, John McAllister	
LaMaster, Virginia Ann	Ill.	B.C.E. 1947, The George Washington	Tex.
Lamb, Denny Virginia	Ga.	University	Va.
Lamb, Harold Moore	Md.	Lane, Mary Catherine	
B.S. 1944, United States Naval		Lane, Munson Harmon, Jr.	Ohio
Academy		B.S. 1948, Emory and Henry College	
Lamb, Paul Clarence	Md.	Lane, Ralph Hoover	
Lambert, Francis Lincoln	D.C.	A.B. 1929, Capital University	
B.S. 1949, The George Washington		A.M. 1932, Ohio State University	
University		Ph.D. 1946, The George Washington	Md.
Lambert, Lillian Merle	Va.	University	D.C.
B.S. 1934, Madison College		Lane, Rosemary Jeannette	
Lambert, Margaret Lucille	Va.	Laney, Arthur R., Jr.	
Lambert, Marie Bohrm	D.C.	A.B. 1947, A.M. 1949, The George	Md.
A.B. 1943, Hunter College		Washington University	
A.M. 1945, Columbia University		Laney, Culbert	
Lambert, Peter Baldwin	D.C.	B.S. 1941, Utah State Agricultural	Fla.
Lambert, Robert Johnston, Jr.	Ark.	College	
Lambert, Robert Lyman	D.C.	Lanford, Horace Whaley, Jr.	Fla.
Lambert, Robert Warren	D.C.	B.B.A. 1948, University of Georgia	
A.B. 1942, DePauw University		Lang, Edward Alexander	
Lambert, Ruth Garner	Ark.	B.S. in B.A. 1943, University of	
Lambright, Ethel Pauline	Miss.	Florida	
A.B. 1933, Mississippi College			
Lambros, John William	D.C.		



Lang, John Carl		Larson, Robert Edwin	N.Y.
A.B. in Ed. 1936, State Teachers	S.D.	Larson, Robert LeRoy	Mont.
College, Valley City, N. D.		A.B. 1949, Montana State University	Ill.
A.M. 1949, The George Washington		Larson, Ruth Louise	
University		A.B. 1946, Carleton College	Ind.
A.M. 1949, Northwestern University	Ill.	Larson, Walter Julius	D.C.
Lang, John Christian		LaRue, Mary Virginia	D.C.
Lange, Ruth Eleanor	Va.	LaRue, Robert Emmett	Wis.
B.S. 1949, Teachers College of		LaSage, Phillip Irin	
Connecticut		A.B. 1948, Colorado College	N.Y.
Langenbeck, Earl Henry	Md.	Lasher, Clinton	Pa.
B.S. in C.E. 1944, University of		Lasher, Jay Donald	
Missouri		B.S. 1949, University of Pittsburgh	Ga.
Langerman, Elaine Mildred	D.C.	Lashley, Lois Pickens	D.C.
Langford, John Walter	Wyo.	Lasky, Raymond	D.C.
Langley, Harold David	D.C.	Lasley, Donald Gray	Calif.
Lango, Alphonse James	Mass.	A.B. 1949, Duke University	
A.B. 1949, The George Washington		LaSpada, Jack Anthony	
University		B.S. 1941, United States Naval	
Langr, George Edward	N.Y.	Academy	
A.B. 1948, Union College and		M.S. 1946, Massachusetts Institute	
University		of Technology	N.C.
Lano, Lorna Jane	Minn.	Lassiter, Emily Ware	Va.
Lanosz, Michael	Pa.	Lassiter, Robert Pittman	D.C.
Lansing, Edward Watson	Mo.	Latham, Royce	Md.
LaPerche, Jacques Benonie	R.I.	Lathan, William Clark	
Lapham, George Sealy	Ga.	A.B. 1934, Maryville College, Tenn.	Va.
Lapin, Earl Michel	N.Y.	Lathram, Leslie Wade	
Lapp, Hazel Williams	Md.	A.B. 1937, Miami University	
B.S. 1914, Ohio State University		A.M. 1939, University of Cincinnati	Va.
M.S. 1940, University of Chicago		Lathrop, Richard Payne	Mass.
Lappin, John Eldridge	D.C.	Latino, Jennie Mary	N.Y.
Lappin, Robinson	D.C.	LaTorre, Richard Robert	N.Y.
Laprade, Gertrude Cecelia	D.C.	LaTorre, Vincent Thomas	Va.
Laric, Ivan Gerald	N.Y.	Latsios, George Christ	R.I.
A.B. 1949, Brown University		Latt, Benjamin	
Larimore, Theodore Russell	Md.	A.B. 1948, Brown University	D.C.
B.S. 1928, Indiana University		Latta, Daniel Weidner	D.C.
M.S. 1931, University of Illinois		Latta, James Clay, Jr.	W.Va.
Ph.D. 1945, University of Nebraska		Lattimer, Patricia Ann	
Larison, Oliver Kugler	Md.	A.B. 1949, West Virginia University	Hawaii
A.B. in Ed. 1939, The George Wash-		Lau, Stanley Ying Chan	N.Y.
ington University		Laubgross, Marvin	Md.
Larius, Walton Emil	N.Y.	Laubinger, Frank Herbert	D.C.
Larkin, Alfred Joseph	N.Y.	Laubscher, Lawrence Edwin	Kans.
B.S. 1927, Colgate University		Lauck, Robert Gerald	
Larkin, Daniel Franklin, Jr.	R.I.	A.B. 1949, Municipal University of	
Larkin, Maureen	D.C.	Wichita	N.Y.
Larmon, Elizabeth Angle	Ky.	Lauder, Robert Bruce, Jr.	D.C.
A.B. 1933, Western Kentucky State		Laughery, Elsie Florence	Va.
Teachers College		Laughlin, Charles Russell	Kans.
LaRocca, Marie Barbara	N.Y.	Laughlin, John Gregory, Jr.	N.Y.
B.S. 1949, The George Washington		Laughlin, Richard Thomas	
University		B.S. in Ch.E. 1949, University of	
Larrick, Benjamin Franklin	Va.	Notre Dame	Tenn.
Larrick, Dorothy Marcella	Kans.	Laughmiller, Roy William, Jr.	
A.B. 1948, The George Washington		A.B. 1947, Maryville College	Pa.
University		Laurence, Edwin Anthony	D.C.
Larrick, Laura Cummings	Va.	Lavagnino, Geraldine Sinclair	Md.
Larrick, Mary Lois	Kans.	Lavine, Estelle	
A.B. 1946, The George Washington		A.B. 1933, The George Washington	
University		University	Va.
Larsen, Morris Alven	Iowa	Lavine, Irvin Arthur	
Larson, Charles Oscar	Va.	B.A.E. 1947, Catholic University of	
B.S. 1926, United States Naval		America	N.Y.
Academy		Law, Anna Mae	D.C.
Larson, Colleen Mildred	Mont.	Law, Mary Agnes	
Larson, David Maurice	Md.	B.S. 1935, Mississippi Southern College	D.C.
Larson, Donald Eugene	Minn.	Law, Susan Byrdella	Pa.
Larson, Marlys Kathleen	N.D.	Lawbosky, Barbara	Va.
A.B. 1945, Concordia College, Minn.		Lawless, William Josselyn, Jr.	D.C.
Larson, Milton Arvid	Utah	Lawlor, Henry William	
Larson, Richard Eugene	Mont.		



Lawrence, Derek Peter B.M.E. 1948, Clarkson College of Technology	N.Y.	Leckie, Jack B.S. 1938, Marshall College	W.Va.
Lawrence, Dorothy Duncan B.S. 1937, George Peabody College for Teachers	Va.	Ledbetter, Archibald Clarence Ledbetter, Julia Elizabeth A.B. 1944, The George Washington University	Md. Miss.
Lawrence, Frank Edward	D.C.	Lederer, Lois Elsie	D.C.
Lawrence, Lester Albright, Jr.	Va.	Ledesma, Consuelo Pablo	Philippines
Lawrence, Malcolm A.B. 1948, The George Washington University	D.C.	B.S. in Ed. 1948, University of the Philippines	Mass.
Lawrence, Robert Anthony	Md.	Ledoux, William Adelard	Mass.
Lawrence, Robert Prentice	Conn.	LeDuc, Philip Sheridan, Jr.	N.C.
Lawrence, Roger, Lee B.S. 1943, Ohio State University	Ohio	Lee, Alma Raines A.B. 1947, East Carolina Teachers College	
Lawrey, George Alan	D.C.	Lee, Belva	Idaho
Lawson, Adrian Lee	Va.	B.S. 1930, Brigham Young University	
Lawson, Alfred Brett, Jr.	Conn.	A.M. 1938, Columbia University	D.C.
Lawson, Alice Joyce	N.Y.	Lee, Carolyn Thorpe	D.C.
Lawson, Howard Birger	Va.	Lee, Dorothy	Tex.
Lay, Mary Wilma	Miss.	Lee, Emil Weldon B.S. 1948, Georgetown University	Colo.
Layne, Ennis Cecil	Va.	Lee, Harriet S.	
Layne, Phyllis Coffey	D.C.	A.B. 1923, Ohio Wesleyan University	China
Layne, Virginia Ellen	Pa.	Lee, Hei Kit	D.C.
Layton, Cleo Franklin	D.C.	Lee, Helen	
Lazas, Donald Joseph	Pa.	Lee, James Roosevelt A.B. 1947, University of Pennsylvania	D.C.
Leabhart, John William, Jr.	Minn.	Lee, Julia McEachin A.M. 1945, The George Washington University	D.C.
Leach, Daniel Joshua B.S. 1938, University of Minnesota		Lee, Lily Kwai Keui B.S. 1949, The George Washington University	D.C.
Leach, Frank Clay, Jr. B.S. in M.E. 1947, University of Kentucky	Ky.	Lee, Lloyd Wilson	D.C.
Leach, Patricia Hughes	Wis.	Lee, Murray Kent	Va.
Leader, John Louis B.S. 1940, Canisius College	N.Y.	Lee, Paul D. K.	Hawaii
LL.B. 1949, Georgetown University		Lee, Randolph Wilbur A.B. 1947, University of Colorado	S.D.
Leader, Samuel Freece	Pa.	Lee, Raymond B.S. in I.E. 1948, Pennsylvania State College	N.Y.
Leahy, Ruth Anne	D.C.	Lee, Robert B.M.E. 1949, The George Washington University	D.C.
Leahy, John Joseph, Jr.	D.C.	Lee, Shiu Lam	N.Y.
Leahy, William Crahan A.B. 1944, University of Pennsylvania	D.C.	Lee, Stanley Jerome	D.C.
Leamy, Agnes Garrett	D.C.	Lee, Virginia Taylor	D.C.
Leapley, William Trudgeon B.S. 1942, Western Michigan College of Education		Lee, William M.	D.C.
Lear, James Richard	D.C.	Leech, Gladys Gertrude	Va.
Lear, Jeanne Eleanor A.B. 1947, American University		Leech, Walter Murray A.B. 1949, The George Washington University	D.C.
Lear, Joyce Elizabeth	D.C.	Leer, James Edward	D.C.
Learman, John Frank	Mich.	Leetch, William Dougal, Jr.	N.H.
Leary, James Edward A.B. 1948, Duke University	Ark.	Lefebvre, George Pierre	D.C.
Leary, John Patrick	Mass.	Lefer, Samuel	N.Y.
Leary, Norma Ellena	D.C.	Lefingwell, Thomas Cullen	N.Y.
Leary, Patrick James	D.C.	Lefkowitz, Saul B.S.S. 1940, College of the City of New York	D.C.
Leary, Robert George	N.Y.	Leftwich, Frances Walton	Va.
Leas, Florence Ann	D.C.	Leftwich, Helga Neuhaus	Va.
Leasure, James Edward	D.C.	Leftwich, William Edward A.B. 1921, Randolph-Macon College	Va.
Leatherwood, James Hubert	Va.	Legagnoux, Yves Andre	Va.
Leavitt, Raymond Boomer B.S. 1923, United States Naval Academy	D.C.	Legum, Howard Isadore A.B. 1943, Harvard University	Pa.
Lebergott, Ruth W. A.B. 1940, University of Michigan	D.C.	Lehman, Ann Cecilia	N.Y.
LeBlanc, Joseph Lenol	D.C.	Lehman, Paul Allen	China
Lebovitz, Carl Harry A.B. 1946, Bowdoin College	Va.	Lehnert, Robert Conrad	
Lebowitz, Anne Theresa	Md.	Lei, Chih Tseng B.L. 1940, National Peking University, China	
Lebrecht, Richard	N.Y.		
Lechner, Naida Marjorie	Iowa		
Leckband, Paul			



Leibbrandt, Robert Clinton	Kans.	Lesniak, William Walter	Va.
Leich, Mary Townley	Va.	Lesser, Robert George	Mass.
Leichter, Jerome Raymond	N.J.	Lessuk, Gerald H.	N.Y.
Leidinger, Joan Mary	D.C.	Lester, Edwin	D.C.
Leigh, Cecilia Beiser	Va.	B.E.E. 1949, Rensselaer Polytechnic	
Leigh, Mildred Maitland	Va.	Institute	
B.S. 1932, College of William and Mary		Lester, Frances Grigsby	Va.
Leighton, Virginia Cecil	D.C.	B.S. 1945, Madison College	
Leikari, Kenneth Arvi	N.J.	Lester, Frank John	Va.
Leikari, Vicho Raikas	N.J.	Lester, John William	Okla.
Leimbach, Dorothy Gadbois	D.C.	Letts, Kenneth Pearle	Mich.
A.B. 1945, Brown University		Leung, George Buck	D.C.
Leimbach, Leonard LaSalle	D.C.	Levart, Greta Atkin	D.C.
A.B. 1946, Brown University		Levart, Herman Henry	Mass.
LL.B. 1948, The George Washington		LeVeque, Frederick Will	Ohio
University		Lever, Irene Helen	D.C.
Leimberger, Frederick William, Jr.	Ohio	Levering, Elizabeth Burton	Va.
Leimbach, Chapin Ruffner	Va.	Leverington, Richard Dean	Iowa
A.B. 1936, Dartmouth College		Leverone, Harry William, Jr.	D.C.
Leins, Charles Olaf	N.Y.	Levette, Hanna	Ill.
Leiper, Mary Rita	Md.	Levi, Garnett William	Va.
B.S. 1937, Wilson Teachers College		Levillain, Wayne Dewitt	D.C.
Leishman, Merlin Ricks	Utah	Levin, Bernard	D.C.
B.S. 1939, Utah State Agricultural		Levin, Charlotte Ruth	D.C.
College		Levin, Haskell	D.C.
Leister, Raymond Charles	Pa.	Levin, Henry Max	D.C.
Leith, Carroll Irvin, Jr.	Va.	Levin, Irving	N.J.
B.S. 1938, Virginia Polytechnic		Levin, Isaac	N.Y.
Institute		Levin, Jacob Solomon	D.C.
Leith, Theodric Hunton	Va.	LL.B. 1949, The George Washington	
B.S. 1949, University of Maryland		University	
Leizure, Robert Zane	Md.	Levin, Joseph	Md.
Leijert, Robert Henry	Ind.	LL.B. 1949, The George Washington	
LeMay, Mary Elizabeth	D.C.	University	
Lemelman, Ruth	D.C.	Levin, Joseph	D.C.
Lemery, Raymond Ephraim	Ill.	Levin, Mark	Ill.
Lemley, Charles Raymond	La.	B.S. in Ch.E. 1948, Princeton	
Lemmon, Kenneth Thomas	N.Y.	University	
Lemmon, Tony E.	Ind.	Levin, Phillip	Md.
Lemon, Edythe Jewel	Mich.	Levin, Phillip Paul	D.C.
Lemons, F. Ted	Va.	Levine, Alfred Bernard	N.Y.
Lenarduzzi, David Rino	D.C.	B.S. in E.E. 1946, Cornell University	
A.B. 1948, The George Washington		M.E.E. 1949, Rensselaer Polytechnic	
University		Institute	
Lendemann, Ernest Charles, Jr.	Va.	LeVine, Carl Ralph	Mich.
Lennan, Alvin Brooks	Md.	B.S.E. 1936, M.S.E. 1938, University	
Lennox, Mary	D.C.	of Michigan	
Lenoff, Monroe	D.C.	Levine, Deena Ostrolenk	Va.
Lentz, Marcette Agathe	Pa.	B.S. in Ed. 1947, Adelphi College	
Lentz, Walter Scott, Jr.	D.C.	Levine, Grace Flax	N.Y.
Leo, Albert Louis	N.Y.	Levine, Irving	Md.
A.B. 1948, Catholic University of		Levine, Irving Seth	N.Y.
America		B.S. 1941, M.S. 1941, Massachusetts	
Leon, Grace Veronica	N.J.	Institute of Technology	
Leon, Mary Angela	Ohio	Levine, Samuel	N.Y.
Leonard, Charles Richard	Tex.	A.B. 1946, Brooklyn College	
Leonard, Ethel Louise	D.C.	Levine, Saul	N.Y.
A.B. 1948, The George Washington		Levine, Thelma	D.C.
University		Levinson, Arnold Seymour	Va.
Leonard, Eugene Anthony	Va.	Levinson, Cynthia Tyor	D.C.
Leonard, Orel Klein	D.C.	Levinson, Irving	Ill.
A.B. 1949, The George Washington		B.S. 1940, Central Y.M.C.A. College,	
University		Chicago	
Leonard, Thomas Erle	Minn.	Levinson, Lawrence Stanley	N.Y.
LePhef, Patricia Mellon	Md.	B.S. 1948, Rutgers University	
LePore, William August	W.Va.	Levinson, Rose Golda	D.C.
Lerner, Esther B.	D.C.	Leviton, Daniel	D.C.
Lerner, Nathan Harold	D.C.	Levy, Barbara Jeanne	D.C.
Lerner, Theodore Nathan	D.C.	Levy, Charles Kingsley	D.C.
Lertora, John Lindy	D.C.	B.S. 1948, The George Washington	
LeSage, Roland Joseph	N.H.	University	
Leslie, Annavee Beverly Faulkner	Md.	Levy, Donald	D.C.
Leslie, Charles Walton, Jr.	N.C.	LL.B. 1947, University of Maryland	
Leslie, John William	Ind.		



Levy, George	Mass.	Lewitz, Marian	D.C.
A.B. 1949, The George Washington University		Leydon, James Andrew	Mast.
Levy, Harry	N.J.	Leyen, Femina Wouters	D.C.
B.S. in M.E. 1933, Cooper Union		A.B. 1945, Duke University	Tex.
B.M.E. 1936, New York University		Leyendecker, Edward Russell, Jr.	D.C.
M.S. 1946, Stevens Institute of Technology		Leyes, Juan Aparicio	Md.
Levy, Irvin Jack	D.C.	Leyshon, Webster Chadwick	Calif.
Levy, Jordan Samuel	D.C.	Lhamon, George Marion	
Levy, Lewis Edward	N.Y.	B.S. 1939, United States Naval Academy	
Levy, Lois Werbner	Md.	J.D. 1949, The George Washington University	D.C.
A.B. 1948, Radcliffe College		L'Hommedieu, Samuel Joseph, Jr.	
Levy, Nathaniel	D.C.	B.S. 1949, Maryland University	D.C.
Levy, Priscilla	N.Y.	Liang, Edward Yin	N.Y.
A.B. 1948, Hunter College		Liang, Maria Mu-Lian	
Levy, Stanley Stephen	D.C.	M.D. 1942, National Sun Yat Sen University, Canton, China	Mo.
Lewallen, Harold	Md.	Libbee, Max Scott	N.H.
Lewallen, Iris Battle	Md.	Libby, Edwin Clark	D.C.
A.B. 1923, John B. Stetson University	Va.	Liberty, Cyril Jean	D.C.
Lewis, Alan Mead	N.Y.	Libys, Leon	D.C.
Lewis, Arnold Charles		Libys, Morris	Ohio
B.S.S. 1937, College of the City of New York		Licht, Irving H.	
Lewis, Daisy Mildred	D.C.	A.B. 1942, Ohio University	Md.
Lewis, David George, Jr.	D.C.	Licht, Rita R. P.	Mast.
Lewis, Delbert R.	Ariz.	Lichtenstein, Lucille G.	Iowa
Lewis, Edward, Jr.	D.C.	Lichty, Marion Cox	D.C.
Lewis, Edward Francis	Va.	Lidji, Lena	Va.
Lewis, Edwin Newell, Jr.	D.C.	Lidji, Marcel	N.Y.
Lewis, Ellen Lucille	D.C.	Lidsky, Martin David	Md.
Lewis, Fred Ted	Calif.	Liebersohn, Bertha Roseman	D.C.
A.B. 1933, Duke University		Lieblein, Julius	
Lewis, George Allan	Pa.	B.S. 1935, College of the City of New York	
A.B. 1950, Wilkes College		A.M. 1940, Brooklyn College	D.C.
Lewis, Glenn Paul	Ohio	Lieder, Nathan	
Lewis, Harry Frank	W.Va.	A.B. 1943, College of the City of New York	D.C.
A.B. 1939, West Virginia University		Lief, Donald Wolfe	Va.
Lewis, Harvey Daniel	Va.	Liekweg, William Gerard	
A.B. 1924, Wofford College		A.B. 1938, Georgetown University	N.D.
A.M. 1938, University of South Carolina		Lien, John Pershing	Wis.
Lewis, Herbert Bernard	Md.	Liesener, Victor Frank	Pa.
LL.B. 1941, The George Washington University		Light, E. Jerry	
Lewis, Jack Collins	Md.	B.S. in E.E. 1946, Columbia University	D.C.
Lewis, James William	D.C.	Lightner, Celia Edith	D.C.
A.B. 1933, Maryville College, Tenn.		Lii, Hwei-Chen	Md.
Lewis, John Cain	Wash.	Likely, Gwendolyn Dale	
Lewis, John Wallace	Va.	B.S. 1944, University of Maryland	Ola.
Lewis, John Warren	D.C.	Liken, Robert Lee	Md.
A.B. 1948, The George Washington University		Likens, Martha Grace	
Lewis, Leonard Mark	N.Y.	A.B. 1949, University of Maryland	Ill.
B.S. 1946, University of North Carolina		Lilien, Charles Ernest	D.C.
Lewis, Leonard Woodson	D.C.	Lilienkamp, Virginia Ruth	Md.
Lewis, Lunsford Harland	D.C.	Liljegren, Ervin James	Idaho
Lewis, Mae Kathryn	Va.	Liljenquist, L. Blaine	
Lewis, Markham Van Fossen	Va.	B.S. 1938, University of Idaho	Va.
Lewis, Muriel Janet	Calif.	Lillard, Kathleen Flester	
A.B. 1944, University of California		A.B. 1948, The George Washington University	Tex.
Lewis, Raymond Winslow	D.C.	Lillard, Robert Whitely	Pa.
A.B. 1935, Cornell University		Lilley, Horace Clinton	Ohio
Lewis, Robert Baughman	D.C.	Lilliedale, Wilma Laralee	Ohio
A.B. 1941, University of Western Ontario		Lilliefors, Hubert Whitman	D.C.
Lewis, Seth	Va.	Lilly, Alta Bernice	
A.B. 1936, The George Washington University		B.S. 1932, Mississippi Southern College	Va.
Lewis, Virginia Emerson	Tenn.	Lilly Lowell	D.C.
A.B. 1935, LL.B. 1941, The George Washington University		Lim, Chai-Ming	Mo.
Lewis, William Hubert	Va.	Linch, Marjorie Elaine	D.C.
		Linchuck, Stanley Martin	Va.
		Lincoln, John Larkin	



Lincoln, Judson Duley	Va.	Litsch, Harry John	Pa.
A.B. 1943, University of Maryland		B.S. 1949, Pennsylvania State College	
A.M. 1948, The George Washington University		Little, Arthur Franklin	D.C.
Lind, Robert Neal	Va.	Little, Arthur Ludwig	Conn.
Lindahl, Ivan LeRoy	Nebr.	B.S. 1944, Trinity College, Conn.	
B.S. 1941, Nebraska Central College		M.B.A. 1947, University of Pennsylvania	
Lindamood, Joseph Ganam, Jr.	Md.	Little, Bobby Grier	Ga.
A.B. 1943, University of Maryland		Little, John Howard, Jr.	Va.
Lindberg, Carl Donald	Md.	Little, Marion Nethery	Va.
Lindberg, Dale Sheldon	Pa.	B.S. 1922, United States Naval Academy	
A.B. 1943, Bucknell University		Little, Mary Jane	D.C.
Linden, Joseph Edwin	Md.	Little, Robert Paul	D.C.
Linden, Robert Joseph	N.Y.	Littleton, Willis Calvin	Ky.
Lindholm, Einar	D.C.	Littman, Simon	D.C.
Lindley, Thomas Madison	Ariz.	LL.B. 1931, University of Maryland	
Lindner, Thaddeus Alphonse	N.Y.	Litts, Rilma Jean	Vt.
Lindow, Eva Thompson	Va.	Littwin, Charles Stuart	N.J.
Lindsay, Albert Eugene	D.C.	A.B. 1943, Hobart College	
A.B. 1938, Harvard University		Litz, Francis Joseph, Jr.	D.C.
A.M. 1939, University of North Carolina		Litz, Paul Robert	D.C.
Lindsay, Douglas Edward	N.Y.	Liu, Chia-Le	D.C.
Lindsay, John Joseph	Va.	Liu, Daisy	D.C.
Lindseth, Clinton Oliver	N.D.	Liu, Ho	D.C.
Lindsey, Dale Eugene	Iowa	A.B. 1942, Lingnan University, China	
Lindsey, Raymond Gladding	D.C.	Lium, Elli	D.C.
Lindsey, Rosamond O'Neil	Va.	Lively, Carl William	W.Va.
Line, Lucille	Mont.	Lively, Jay Hazel	W.Va.
A.B. 1940, Montana State University		A.B. 1937, Concord College	
Linebarger, Louise O'Reilly	D.C.	Livermore, Ruth Hamilton	D.C.
Linebarger, Margaret Snow	Md.	Livingston, Charles Richard	Va.
Linehan, Daniel William	Mass.	Livingston, Gordon Kendal	N.Y.
A.B. 1949, The George Washington University		Livingston, Jean Meadow	Va.
Linfield, Robert Frederick	Mont.	Livingston, Leonard Leroy	Mich.
Lingenfelter, Glen	Md.	Lizdas, Anthony	Md.
Lingenfelter, Ivan Glenn	Pa.	Lloyd, Albert Lawrence, Jr.	Va.
Lingley, Mary Josephine	Va.	Lloyd, Benjamin Joseph, Jr.	Pa.
Linhof, Eric	D.C.	Lloyd, Donald Geddes	D.C.
A.B. 1949, University of Rochester		Lloyd, Rita Hortense	Va.
Link, Edgar Martin	Pa.	Lloyd, William James	D.C.
Link, Robert O.	Va.	A.B. 1949, University of Maryland	
Link, Robert Wendell	N.J.	Locher, Junior Lewis	Md.
Linkins, Robert Mason	Md.	Lochte, Victor Francis	D.C.
Linman, Douglas Gerrard R.	D.C.	Lockhart, Elizabeth Berkeley	Va.
Lipkey, James Ray	Fla.	A.B. 1927, College of William and Mary	
Lipovsky, Frank Joseph	D.C.	Lodato, Norman Joseph	N.Y.
Lippitt, Raymond Franklin	D.C.	Loe, Myron L.	D.C.
B.M.E. 1949, The George Washington University		Loewenstein, Regina Louise	N.J.
Lippitt, Thomas Perry	D.C.	A.B. 1936, Barnard College	
Lipps, Sarah Elizabeth	Va.	A.M. 1937, Columbia University	
B.S. 1945, Madison College		Loewy, Marvin Richard	D.C.
Lipps, Sue Kirk	Va.	Lofgren, Agnes Marie	Kans.
Lipsky, Harold	N.J.	Loftus, Joseph	Md.
A.B. 1947, New York University		Loftus, Timothy Patrick	Pa.
Lipsky, John Joseph	R.I.	Logan, Joseph Albert	Mass.
Liska, Ellen Lydia	D.C.	Lohm, Thomas Alexander	Md.
Liska, George	D.C.	A.B. 1949, The George Washington University	
LL.D. 1948, Charles University, Prague		Lohman, Richard Herbert	D.C.
Liska, Olga Mary	D.C.	Lohmeyer, Doris Josephine	D.C.
Lissonbee, Bird Eugene	Va.	Lohmeyer, Margaret Mary	D.C.
Lissauer, Nanette Elisabeth	Netherlands	Lohr, Betty Ann	D.C.
LL.B. 1934, LL.M. 1938, University of Leiden, Netherlands		Lokke, Bernard Molineaux	N.Y.
Lister, Herbert Everett	D.C.	Lomax, John Frederick	Ill.
Lister, Stanley Marsh	D.C.	Lombardi, Reilly Robert	Ohio
Liter, Oneta	Va.	Lonas, Leonard Luther, Jr.	Va.
B.S. 1925, University of Missouri		B.S. 1947, Virginia Military Institute	
A.M. 1932, Columbia University		Lonberger, Stanley Thomas	D.C.
Lithgow, James	D.C.	Londis, Louis James	N.Y.
		London, Arthur	Md.



London, John Monte	N.Y.	Loring, Winifred Adelaide	D.C.
A.B. 1941, Harvard University		Lo Russo, Rudolph Richard	Pa.
Loneragan, Ann Yates	Conn.	Losche, Herold Homer	Ind.
B.S. 1948, Wilson Teachers College		A.B. 1935, Hanover College	D.C.
Long, Ashley Bateman	Va.	Lo Schiavo, Mary	Va.
Long, Bazel Ellis	Va.	Losee, Gordon Carroll	
Long, Billie Ketchie	D.C.	B.S. 1931, M.S. 1936, Ph.D. 1940,	
Long, Charles William	Md.	University of Illinois	N.Y.
Long, Dewey Cecil	Okla.	Lott, Fred Eli	
Long, Donald Whitney	Ill.	A.B. 1947, A.M. 1948, Syracuse	
Long, Frank Leon	D.C.	University	D.C.
Long, George Edward	D.C.	Lott, George Agnew	
LL.B. 1949, The George Washington		B.S. 1948, The George Washington	
University		University	D.C.
Long, Helen Cornelia	D.C.	Lott, Margaret Agnew	Va.
Long, Jack Rush	D.C.	Loughridge, Harry Joseph	Va.
Long, John Martin	Pa.	Louk, Ralph Glyn	Pa.
B.S. 1950, Pennsylvania State Teachers		Loun, Elva Mary	Mass.
College, Lock Haven		Lourenco, Manuel Joseph	D.C.
Long, Leonora	Va.	Lout, James Fisher	Md.
A.B. 1936, The George Washington		Love, Daniel Knapp	Md.
University		Love, Jack Edward	
Long, Melvin Eugene	Pa.	A.B. 1948, College of Notre Dame of	
Long, Orrin	Ill.	Maryland	Pa.
A.B. 1941, University of Chicago		Love, James William	D.C.
Long, Paul Robert	Pa.	Love, James William	Tenn.
A.B. 1949, The George Washington		Love, Jolee	
University		B.S. 1932, A.M. 1934, George	
Long, Richard Ward	Va.	Peabody College for Teachers	Va.
Long, Robert Lawrence	Kans.	Lovelace, Neil Richard	
Long, William Francis Edward II	D.C.	A.B. 1948, A.M. 1948, The George	
A.B. 1946, A.M. 1947, The George		Washington University	Md.
Washington University		Loveless, Joseph Mundell	D.C.
Longen, Edmund Herman	S.D.	Lovell, Guy W.	D.C.
Longfellow, Dean Johnson	D.C.	Loverud, Allen Kinsman	D.C.
A.B. 1934, The George Washington		Lovewell, Suzette	Idaho
University		Loving, Sylvia Florence	D.C.
Longfellow, Donald Woodward	D.C.	Low, Rhoda	Mass.
Longfellow, Edwin Connor	N.J.	Low, Richard James	W.Va.
A.B. 1949, The George Washington		Lowe, Eugene Walper	D.C.
University		Lowe, Franklin Gerald	Mass.
Longstreet, Archie P.	N.J.	Lowe, Ira Melvin	
Longyear, Andrew Rudston	Mass.	LL.B. 1948, The George Washington	
Longyear, Robert Rudston	D.C.	University	W.Va.
Looby, Richard Emmet, Jr.	Md.	Lowe, J. William	Mo.
Loomis, Gilbert Brainard, Jr.	N.Y.	Lowe, Joseph Burk	
Loomis, Gloria Gay	N.Y.	B.S. 1940, Southeast Missouri State	
Loomis, Gwendolyn Yvonne	Tex.	College	
A.B. 1949, The George Washington		A.M. 1947, University of Missouri	D.C.
University		Lowenthal, Emil	D.C.
Loomis, Helene Elisabeth	D.C.	Lowenthal, Herman	Md.
Loomis, Jerome Lathrop	Wis.	Lowery, Thomas Cumillus	Wash.
B.Ed. 1935, Wisconsin State Teachers		Lowman, David Daniel	
College, Whitewater		A.B. 1949, Stanford University	Mass.
A.M. 1942, Northwestern University		Lowrie, Alexander Robert	D.C.
Loomis, Maxine Ann	Ill.	Lowrie, Elwood Dawson	Calif.
Loomis, Wilhelmina Lucia Tortike	Md.	Loy, John Irving	
Loosarian, Armen Barour	Va.	A.B. 1942, University of California	Va.
B.S. 1948, Columbia University		at Los Angeles	
Loosarian, Yerchanig Antreasian	Va.	Loyd, Arden Robinson	D.C.
Loose, Frederic DeTurck	Va.	Loyd, Elizabeth Gregg	D.C.
Loose, Winfield Warren	Pa.	Loyd, Ray Dean	Va.
Loper, Matel Grace	Kans.	Loyk, Victor	Cuba
Lopes, James	D.C.	Loys, Maria Luisa	
Lopez, Cornelio Orial	Md.	C.P.S.E. 1939, LL.D. 1940, D.D.C.	
A.B. 1927, State University of Iowa		1945, University of Havana	D.C.
Lopez, Manlio Maldonado	D.C.	Lozada, Zeny Zapanta	Del.
Lorah, Richard Alfred	Pa.	Lozano, Edgardo Manuel	Pa.
B.S. 1949, Georgetown University		Lubczyk, Johanna	D.C.
Lord, Marion Wilson	D.C.	Lubin, Bernard	N.J.
Lorditch, Joseph James, Jr.	D.C.	Lubin, Donald	
Loren, Phyllis C.	Minn.	A.B. 1948, The George Washington	
Lorenz, James Edward	Ark.	University	D.C.
Lorenzen, Jean Elizabeth	D.C.	Lubin, Frances Reichman	



Lubin, Joseph Meyers	Ab. 1948, The George Washington University	Md.	Luning, Alfred Onno	Va.
Lubore, Terry Samuel			Lusby, Jacquelyn Blanche	D.C.
Lush, Michael Grattan		Md.	Luscomb, Charles Edward, Jr.	Conn.
Lucas, Barbara Jeanne		Va.	Lush, Roberta Cregier	Tenn.
Lucas, Bertha Lovell		Va.	Lushok, Helen	D.C.
Ab. 1923, The George Washington University		D.C.	Luther, Elmer Eugene	Mo.
Lucas, Charles William			Ab. 1949, The George Washington University	
Lucas, Henry August		Va.	Luthy, Nelson Anthony	Md.
Lucas, Joseph John		N.Y.	Lutz, Charles Lester	Tenn.
Lucas, Lawrence Aloysius		Pa.	Ab. 1941, University of Louisville	
Lucas, Mildred Foster		Md.	LL.B. 1948, Vanderbilt University	
Ab. 1948, The George Washington University		Va.	Lutz, E. LeRoy, Jr.	D.C.
Lucas, Thomas Van Fleet			Lutz, Louis	D.C.
Ab. 1949, Michigan State College		Mich.	Luyten, Maria Elsa	D.C.
Luce, William Edward		D.C.	LL.D. 1946, University of Leiden, Netherlands	
Luce, Walter James		D.C.	Lybarger, Maxine Staffin	D.C.
Ab. 1935, Bowdoin College		Maine	Lyda, James Claude H.	D.C.
Lucia, Angela A. M.			Ab. 1948, The George Washington University	
Lucian, John Paul		Minn.	Lyddane, Mary Elizabeth	D.C.
Luck, William Bryant		Ohio	B.S. 1933, Columbia University	
Ab. 1948, University of Richmond		Va.	Lynde, Robert Eugene	Minn.
Lucke, Robert Charles			Lyle, Robert Hallie	Va.
Ab. 1948, Catawba College		N.C.	Lyles, Thomas Brooks	Va.
Luckett, Shirley Theresa			Lyman, Marjorie Anne	Va.
Lucky, John Francis		D.C.	Lynch, Frances Marie	N.J.
Lucky, Florence Regina		D.C.	Lynch, James, Jr.	D.C.
Ludlow, Rowena Dyer		Pa.	Lynch, John William	Md.
Ludwig, Helen		Va.	Lynch, Marion Paul	Md.
Ab. 1948, The George Washington University		N.J.	Lynch, Robert Paul	Md.
Luedeman, Hazel McClure			Lynch, Susan Margaret	D.C.
Ab. 1926, University of Kansas		D.C.	Ab. 1948, Colby College	
Luers, Mildred May			Lynch, William Charles	Va.
Luginbuhl, Kathryn Louise		D.C.	Lynch, William Walker	Va.
Ab. 1943, The George Washington University		Ohio	Lynes, Adele Goodwyn	D.C.
Luhntanen, Andrew Aatos			Lynn, Bernard	D.C.
Luke, Reid Stephen		D.C.	Lynn, Evelyn Irons	Va.
Lukens, Arvilla Ina		Ga.	Lynn, Mary Elizabeth	D.C.
Lukens, Frederick		Pa.	Ab. 1949, Randolph-Macon Woman's College	
Ab. 1946, University of Idaho		Idaho	Lynn, Nancy Lee	Va.
Lulich, Ljubo			Lynn, William Louis	Md.
Lulkoski, Winifred Adele		Miss.	Ab. 1931, Lynchburg College	
Ab. 1945, New York State Teachers College, Albany		N.Y.	A.M. 1941, Duke University	
Lum, David Walker			Lyon, Frances Fort	D.C.
Lum, Edwin Chung		D.C.	Lyon, Malcolm Bernard	N.H.
Lum, Ronald St. Alban		N.Y.	Lyons, Alma Coakley	Md.
Lund, John Freeman		Va.	B.S. 1949, Wilson Teachers College	
Lund, Theodore J.		Pa.	Lyons, James Francis	D.C.
B.M.E. 1948, College of the City of New York		N.Y.	Lyons, Lloyd Edward	D.C.
Lund, Van Metre			Lyons, Robert Bruce	Md.
B.S. 1944, Iowa State College of Agriculture and Mechanic Arts		Iowa	Lyons, William Stewart	D.C.
Lund, Walter V.		D.C.	Ab. 1948, The George Washington University	
Lund, Wilbur Herman		Minn.	Lysczek, Edward Francis	Pa.
A.M. 1942, University of Minnesota			Lytle, George Coolidge	D.C.
Lundgren, Eugene Albert			Lytle, John Albert	Va.
Lundgren, Henry Willard		R.I.	Lytle, John Thomas	Va.
Lundquist, Suzanne Stone		Wash.	Lytle, Martha Jane	Nebr.
B.S. 1948, University of Maryland		D.C.	Lytle, Marjorie Jane	D.C.
Lundy, Julian Percy		Md.	Lytzen, William Walter	Calif.
Ab. 1949, The George Washington University			Ab. 1947, The George Washington University	
Lung, Ernest Hezekiah				
B.S. 1938, University of Maryland		D.C.	Ma, Keli Sae	Siam
			Mabry, Carol Joan	D.C.
			Mabry, Shirley Ann	D.C.
			Macadie, Helen Drummond	N.C.
			MacAfee, Douglas Clarard	D.C.



MacArthur, Edgar Huston	D.C.	Macomb, Alexander	D.C.
MacArthur, Guy	D.C.	B.S. 1911, United States Naval Academy	D.C.
Macaulay, Ruby Mitchell	Ill.	Macon, Edward Malcolm	D.C.
A.B. 1928, Mount Morris College		Macon, Robert Carpenter	D.C.
M.S. 1948, Columbia University		Macpherson, Alan Campbell	D.C.
MacCormick, Wilfred Raymond	D.C.	B.S. 1943, University of Maryland	D.C.
MacCracken, William Lewis	D.C.	MacRae, Duncan Shaw	D.C.
MacDonald, Roger Milo	Va.	Macri, Frank John	D.C.
MacDonald, Charles Brown	D.C.	A.B. 1943, University of Maine	Va.
A.B. 1942, Presbyterian College		MacSporran, John Samuel	
MacDonald, Frank Joseph	Md.	A.B. 1940, Yale University	Iowa
MacDougall, Dougall	N.Y.	Macy, Janet Louise	Md.
Mace, Almon Turley	Va.	Madden, Dennis William	
B.S. 1934, M.S. 1936, Purdue University		B.Arch. 1943, Catholic University of America	Okl.
Macekura, Joseph	Pa.	Madden, William Russell	Kans.
A.B. 1949, The George Washington University		Maddix, Grace Evelyn	Iowa
MacElhose, Jack Harold	W.Va.	Maddox, Pauline H.	
Macesich, George	Md.	A.B. 1918, Cornell College	Md.
MacEwen, Ellen Mae	Md.	Maddox, Preston Francis	Va.
MacFarlane, James Cunningham, Jr.	Md.	Mader, George Franklin	
MacGill, Leon Herbert	Va.	A.B. 1947, University of Richmond	Ill.
MacGiruin, Marjorie Ellen	Nebr.	Madsen, Andrew Calvin	Nebr.
MacGowan, Olga	D.C.	Madsen, Karen Violet	D.C.
Macha, Marilyn Clara	Tex.	Maffey, Ralph Burton	
Machen, Lorelle Horning	D.C.	B.S. 1943, Rutgers University	Va.
A.B. 1949, Mills College		Magee, Robert Henry	N.Y.
Machen, Valentine	D.C.	Maggio, Paul Angelo	D.C.
A.B. 1942, University of Maryland		Maghan, Kenneth Eugene	Va.
Machenberg, Edith	D.C.	Magill, Elizabeth Graybill	
Machita, John	N.J.	A.B. 1946, University of North Carolina	N.D.
A.B. 1948, The George Washington University		Magill, Grace Lorraine	D.C.
Machlin, Claire Tajen	D.C.	Magill, Jane Elfrieda	Tenn.
A.B. 1947, Hunter College		Magin, George Benedict, Jr.	Idaho
Machlis, Franklin Elliott	D.C.	B.S. 1946, University of Chattanooga	
MacIntire, Andrew Harry	Md.	Magleby, Dale Hammer	
Mack, Ferdinand Joseph	Conn.	B.S. 1948, A.B. 1949, Idaho State College	Md.
Mack, James Edward	Fla.	Magner, Joseph Paul	Ohio
A.B. 1943, The George Washington University		Magness, John Lower	Mont.
Mack, John Halford	Md.	Magnus, Frederick	D.C.
B.S. 1937, University of New Hampshire		Magrath, May Irene B.	
Mack, Victor Anthony	N.Y.	A.B. 1926, St. Joseph's College for Women	Va.
A.B. 1941, Brooklyn College		Maguire, John Barry	Pa.
Mackasek, James Printz	D.C.	Maguire, Katherine Doehne	
Mackensen, Judith Agnes	D.C.	A.B. 1948, Hood College	Pa.
Mackey, Argyle Robert	Va.	Mahan, John Victory	
Mackey, Charles Eugene	Calif.	A.B. 1949, University of Pittsburgh	Mich.
Mackey, Constance Jean	Pa.	Mahaney, John Gage	
A.B. 1949, Duke University		B.S. 1949, Michigan State College	N.Y.
Mackey, Leonard Bruce	N.Y.	Mahar, Daniel John	D.C.
B.E.E. 1945, Rensselaer Polytechnic Institute		Mahar, Robert Francis	Va.
Mackey, Mary Ellen	Va.	Mahardy, John Thomas	Calif.
Mackrell, James Joseph	N.Y.	Maher, Eugene Hugh	
MacLaughlin, Matthew Charles	Wyo.	B.S. 1932, United States Naval Academy	Tex.
MacLean, Hugh Donald	Va.	Maher, Francis Patrick	N.H.
MacLean, William Gordon, Jr.	Va.	Maher, John Francis	
MacMillan, John Howard	Md.	A.B. 1948, University of New Hampshire	Tex.
LL.B. 1949, The George Washington University		Mahler, Nora F.	Pa.
MacMillan, William McGregor	Va.	Maholchic, Eugene Francis	D.C.
MacMurdy, Robert Duncan	D.C.	Mahoney, John Andrew	N.Y.
A.B. 1947, Princeton University		Mahoney, Richard Joseph	D.C.
MacNab, John Erwin	Canada	Mahood, Harry Richard	Ohio
A.B. 1948, The George Washington University		Maiden, E. Jane	Va.
MacNeil, Joseph Hector	D.C.	Maigret, Vera Sheffield	Va.
MacNichol, Layton Frank	D.C.	Main, William Elmer	Md.
A.B. 1942, The George Washington University		Mainhart, Howard Morsell	Md.
		Maire, Cyril Emil, Jr.	Tex.
		Maisch, Ormand Russell	



Maisel, Seymour Georg A.B. 1949, Bucknell University	Pa.	Mandrovsky, Boris Nicholas B.S. 1940, College of the City of New York	N.Y.
Majchryk, Edmund Steven	N.Y.	Mane, Manfred	D.C.
Maki, Walfred Victor	Minn.	Manfuso, John A., Jr.	D.C.
Makin, Lloyd John	D.C.	Mangold, Edward Andrew Phar.G. 1934, Philadelphia College of Pharmacy and Science	Md.
Malaier, Elbert Hubbard	Ga.	Mangold, Robert John	N.Y.
Malask, Bernice	D.C.	Mangum, Mary Coe	Tex.
Malask, Howard Stanley	D.C.	Mangum, Mary Inez	D.C.
Malboeuf, Alfred Charles A.B. 1943, University of California	Va.	Manico, Samuel Anthony	N.Y.
Malcolm, James Jack	D.C.	Manitsas, Elly Despina	D.C.
Malec, Edward L. B.S. 1936, University of Illinois	D.C.	Mankin, Arthur Kenneth	Md.
Malecki, Robert Joseph B.S. 1943, Wisconsin State Teachers College, Stevens Point	Va.	Mankin, Keith Archibald B.S. 1948, University of Virginia	Va.
Malinchak, Nicholas A.B. 1949, University of Pittsburgh	Pa.	Mann, Betty Lou	Md.
Maliniak, Lennart	D.C.	Mann, Charles Kenneth	Md.
Malison, Robert	D.C.	Mann, Donegan A.B. 1947, The George Washington University	D.C.
Malkin, Jack	D.C.	Mann, Eva Myrtle	N.C.
Malkin, Warren Preston	D.C.	Ed.B. 1929, Asheville Normal and Teachers College	
Mallack, Jerry	Md.	Mann, John Gray	D.C.
Mallard, Claude O'Neal	D.C.	Mann, Leah Frances	N.C.
Malley, Francis Edward	N.J.	Mann, Robert Urban	D.C.
Mallgrave, Nina Regina	D.C.	A.B. 1949, The George Washington University	
Mallgrave, William John	D.C.	Mann, Shirley Louise	Md.
Mallon, Jerome Anthony	Va.	Mann, Vera Williams A.B. 1941, Texas Christian University	Va.
Malloy, Ann Elizabeth	D.C.	Manning, Charles Madison A.B. 1947, Union College, Ky.	Ky.
Malloy, Raymond James	N.Y.	Manning, Francis John	Va.
Malloy, William James	N.D.	Manning, Glenn Franklin LL.B. 1948, University of Alabama	Ala.
Malmat, Harold	N.Y.	Manning, James Stuart	Md.
Malone, John Raymond	Ohio	Manning, Louis M.	Colo.
Malone, Mary Kathleen	D.C.	Manning, Phyllis Mary	Mass.
Malone, Ralph Whatley	Md.	Manning, Ruth Jean Martin A.B. 1928, Oakland City College	D.C.
Malone, William Grady B.S. 1941, Louisiana State University	Va.	A.B. in L.S. 1929, University of Michigan	
Maloney, Edward	N.J.	Mano, Kyuma	Ill.
Maloney, Frank	Va.	Manolatas, Alice Hope	D.C.
Maloney, Grace Catherine	D.C.	Manos, Nicholas Emmanuel A.B. 1938, A.M. 1942, University of California	D.C.
Maloney, Helen	Va.	Manoukian, Rachel Elizabeth	D.C.
Maloney, James Edward	D.C.	Manser, Donald E., Jr.	D.C.
Maloney, Patricia Claire	Pa.	Mansfield, Mae Helen A.B. 1949, The George Washington University	Ill.
Maloney, William Everett	Mass.	Manthey, Richard Gledhill	Ohio
Malowski, Mary Marguerite	Minn.	B.S. 1948, Western Reserve University	
Malstrom, Robert Andrew	Mich.	Mantle, Mary Lou Swift	Va.
Maltagliati, Oreste Francis	D.C.	A.B. 1935, University of North Carolina	
Malterud, Kathrine Artium 1917, Gymnasium, Skien, Norway	Va.	Manuell, Bernard M.	D.C.
Malterud, Olaf	Norway	Many, George Albert	D.C.
M.E. 1946, University of Oslo		Manzano, Teodoro A.B. 1947, University of Texas	Tex.
Maltman, William Leneave B.S. 1943, University of Oregon	D.C.	Manzenberger, Rudolph, Jr.	Ind.
Malven, Cal Stanislaus	N.H.	Maple, George William	Va.
Malzone, Francis Richard	Md.	Maples, Houston	Md.
Mamish, Edith Virginia	W.Va.	Marangella, Joel Bray	D.C.
Mamish, Julia	W.Va.	Maravalli, Eugenia Rose	Pa.
Mamolito, Guy Francis	Pa.	Marbois, Noel Jules	Md.
Manahan, Raymond James	Ohio	Marceron, Louis Norman	Va.
Manaker, Leon	N.Y.	Marcevic, Emily Ann	Va.
Manaley, Joseph Claxton	Fla.	March, Christian Laurin, Jr.	N.Y.
Mandel, Bernard A.B. 1933, A.M. 1934, University of Pennsylvania	Pa.	March, Francis Andrew, Jr.	D.C.
Mandel, Nathan	N.Y.	March, Joseph Wolf, Jr.	Pa.
Mandelberg, Herman William	D.C.		
Mandes, James Charles A.B. 1947, The George Washington University	D.C.		
Mandjuris, Andrew Anthony	Md.		
Mandragos, Constantine Nichols	Md.		



Marchand, Wilbert George	R.I.	Marsh, Frances Brandis	Md.
Marchese, Marion Veronica	N.Y.	Marsh, 1925, University of North Carolina	Tex.
Marchi, Louis Basil	D.C.	Marsh, Harold Cameron, Jr.	Va.
Marchwicki Edward	Md.	Marsh, 1941, The George Washington University	D.C.
Marciniak, Frank Walter	N.J.	Marsh, Mary Louise	N.Y.
Marcday, Elliott William	D.C.	Marsh, Richard Wade	Va.
Marcosano, Muriel Angelé	N.Y.	Marsh, 1943, American University	D.C.
Marcovitz, Ruth	D.C.	Marsh, 1949, The George Washington University	N.Y.
Marcuse, Ernest	N.Y.	Marshak, Bennis	Va.
Marden, Ethel Cox	Va.	Marshall, André	Va.
A.B. 1948, Mary Hardin-Baylor College		Marshall, Andrew Robert	Md.
Mares, Christie Gilbert	D.C.	Marshall, Charles Elmer, Jr.	W.Va.
Marfing, Charles A.	D.C.	Marshall, Charles Lance, Jr.	Va.
A.B. 1930, Pennsylvania State College		Marshall, B.S. in E.E. 1949, Purdue University	Va.
M.S. 1949, Columbia University	Calif.	Marshall, Edward Lester, Jr.	Va.
Margaritis, Nicholas John	D.C.	Marshall, Frank Stadden, Jr.	Va.
Marggraf, Bertha Virginia	D.C.	Marshall, John	Va.
Margolis, Joel	D.C.	Marshall, John C.	D.C.
B.S. 1948, University of Maryland		Marshall, Joseph Leo	Va.
Margrave, Elmer	D.C.	Marshall, Lilyan May	N.Y.
A.B. 1949, The Citadel		Marshall, Marvin Lawrence	Fla.
Mariano, Joseph Frank	N.J.	Marshall, Mildred Maxine	D.C.
Mari-Brás, Juan	Puerto Rico	Marshall, Ruth	D.C.
A.B. 1949, Florida Southern College		Marshburn, Charles Everett	Va.
Marine, Melvin Irving	Md.	Marsteller, Herbert Heiskell	Md.
Marinelli, Victor Francis	Md.	Marston, Alan Douglas	
Marinoble, James Vincent	Va.	B.E.E. 1948, University of Louisville	Md.
Marion, Paul James	Md.	Martell, Robert Joseph	Calif.
Markell, John Kincaid, Jr.	Va.	A.B. 1949, University of Maryland	
Markew, Eleanor Margaret	Va.	Martens, Doris Katherine	
Markham, Charles Buchanan	N.C.	A.B. 1944, University of Southern California	D.C.
A.B. 1945, Duke University		Marthinsen, Clara Brasel	
Markham, George Douglas	D.C.	A.B. 1941, The George Washington University	Va.
Markham, Mary Rita	D.C.	Martin, Albert Louis	Md.
Markham, Richard Allen	D.C.	Martin, Carrie Panebaker	Va.
Markle, John Henry	Va.	Martin, Daniel Walter	Md.
Markley, Allan L.	D.C.	Martin, Dean Harrington	D.C.
Markmann, George Howe	Va.	Martin, Donald Drew	Nebr.
Markovich, Mike	D.C.	Martin, Edward Eugene	D.C.
B.S. 1949, Georgetown University		Martin, Fay Emmett	Wash.
Markowitz, Agnes Regina	Pa.	Martin, Grant Pedler	Md.
Markowitz, Irving	N.J.	Martin, Harry Robert	
Marks, Chester Dale	D.C.	A.B. 1949, University of Puerto Rico	Va.
Marks, Donald	N.Y.	Martin, Hugh Jack	
Marks, Geneva Alberta	D.C.	J.D. 1939, The George Washington University	Va.
Marks, Ida May	N.Y.	Martin, James Carroll	D.C.
Marks, Lee Robert, Jr.	Ga.	Martin, James Lewis, Jr.	Va.
Marks, Solomon	Md.	Martin, Janice Catherine	
B.S. 1937, College of the City of New York		A.B. 1948, The George Washington University	Iowa
Markwood, Carl Christopher	Pa.	Martin, Jerome Daniel	D.C.
B.S. 1949, St. Vincent's College		Martin, John Peter	D.C.
Markwood, Juliet	D.C.	Martin, John Warren	Md.
Marlin, Walter, Jr.	Md.	A.B. 1950, Dartmouth College	D.C.
Marlow, Charles Austin, Jr.	Calif.	Martin, Judith Lee	Md.
Marlow, Howard Waring	Md.	Martin, Julius Corpening	D.C.
Marlow, William Haworth	Md.	Martin, Laura Evelyn	Md.
Marlowe, George Albert, Jr.	D.C.	Martin, Lawrence Stephen	Md.
B.S. 1949, The George Washington University		Martin, Leyland Myers	Pa.
Marmor, Alfred Charles	N.Y.	B.S. 1934, University of Arkansas	
Marowitz, Daniel David	D.C.	Martin, Luther Nunemaker	N.H.
Marowitz, Virginia Woodbury	N.M.	B.S. 1949, University of Missouri	Va.
A.B. 1946, University of Maryland		Martin, Marjorie	D.C.
Marquardt, Frank Richard	Va.	Martin, Marshall Alden, Jr.	D.C.
Marques, Mary Gilda	Mass.	Martin, Mary Carolyn	Md.
B.S. 1941, Massachusetts State Teachers College, Salem		Martin, Paul Kyler	D.C.
A.M. 1942, Boston University		Martin, Paul Ray	D.C.
Marra, Alfred Louis	D.C.	Martin, Peter J.	
Marrero, Robert	N.Y.		
Marrs, Calvin Rodes	D.C.		
Marsden, Frances Thomas, Jr.	D.C.		



Martin, Philip Joseph	N.Y.	Masse, Samson	N.Y.
Martin, Ralph Edward	Maine	Massey, Frank Stanley	D.C.
Martin, Richard Alton	Ohio	Massie, Cary Winston	Va.
Martin, Robert Douglas	D.C.	Massie, Katie Garland	Va.
A.M. 1948, East Carolina Teachers College		B.S. 1935, Virginia State Teachers College, Farmville	
Martin, Robert Henry	Pa.	Massie, Maxine	Mo.
Martin, Robert Laverne	Ala.	Mast, Phillip Wonn	D.C.
Martin, Robert William, Jr.	Mo.	Masters, Marcelle Claribel	Ark.
A.B. 1949, Southwest Missouri State College		Masters, Margaret Ann	Pa.
Martin, Roger Arthur	Md.	Masterson, Francis Wilbur	Mont.
Martin, Shula	D.C.	Mastrone, Viola Virginia	D.C.
Martin, Thomas Archie	Ill.	Mastropaolo, Salvatore	N.Y.
A.B. 1949, The George Washington University		B.S. in Ed. 1941, College of the City of New York	
Martin, Thomas Dillon	Va.	Matacia, Florence T.	Va.
Martin, Watt Nicholas	Va.	Matera, Ralph Joseph	D.C.
Martin, Wayne Francis	Va.	B.S. 1946, The George Washington University	
Martin, Willard Arthur	D.C.	Maters, Catherine Elizabeth	D.C.
Martin, Zagorka Plavsic	D.C.	Mates, Edward I.	N.Y.
Martinelli, Leo	Tex.	A.B. 1939, Brooklyn College	
Martinez, Charles	D.C.	Mates, Ida Elaine	Pa.
Martini, Anthony Francis	Pa.	Matheney, Elizabeth Rachel	Va.
A.B. 1948, The George Washington University		B.S. 1939, Radford College	
Martins, Elson Solano	Brazil	Matheny, Elizabeth Jane	Va.
Martins, Frank	D.C.	Matheny, Lula S.	Mo.
Marton, Tibor William	D.C.	Mathers, Alex Pickens	Va.
Martowicz, Edward Thomas	Ohio	B.S. 1931, University of Florida	
Martusevich, Gregory Paul	N.Y.	M.S. 1946, Tulane University	
Martyn, Earl William	D.C.	Mathers, Ella Grim	Va.
A.B. 1939, Catholic University of America		B.S. 1942, Madison College	
Martz, Mary Hannah	D.C.	Matheson, John Douglas	D.C.
Marvey, Adolph Louis	Va.	B.S. 1933, United States Military Academy	
Marvil, Frederick Linwood, Jr.	D.C.	Mathews, Edward Ray	Ark.
Marx, David Lester	D.C.	Mathews, Mitford M.	Va.
Marx, Joseph William	Pa.	A.B. 1943, University of Illinois	
Marx, Robert Simon	Mass.	Mathews, Robert Stanley	D.C.
Maryn, David	D.C.	Mathewson, Arthur de Wolfe	Canada
Marzo, Floyd Augustus	D.C.	A.B. 1949, McGill University	
Maschauer, Ruth Doloris	Md.	Mathias, Esther A.	D.C.
Masciarelli, Joseph Robert	N.Y.	Mathias, Richard Bingham	D.C.
Mascolo, Virginia Joan	D.C.	Mathieson, Walter Whitman, Jr.	D.C.
Maser, Janice Marie	Va.	Mathis, Irving	N.Y.
A.B. 1948, University of Nebraska		Mathis, William Lowrey	Tenn.
Maser, Wesley John	Nebr.	B.S. in M.E. 1947, Duke University	
A.B. 1948, University of Nebraska		Mathur, Krishn Dayal	India
Mashburn, Thomas Vincent	Ala.	M.S. 1942, Osmania University, India	
B.S. 1947, University of Alabama		Matlaw, Betty Bernice	D.C.
Masiello, Joseph Alvin	Va.	Matson, Richard Lee	Iowa
Maskaleris, Christos Louis	Conn.	Mattachione, Albert Paul	Md.
Maskaleris, Eva Chris	Okla.	Mattern, Roy Edwin, Jr.	Mich.
Maslow, Albert P.	D.C.	B.S. in M.E. 1942, LL.B. 1948, University of Michigan	
A.M. 1938, Western Reserve University		Matthes, Chester Anthony	Md.
Mason, Anne Dunklin	Ala.	Matthews, Charles Donald	Tex.
Mason, Chaytor Diez	Va.	A.B. 1948, A.M. 1949, The George Washington University	
A.B. 1949, The George Washington University		Matthews, Eloise Carolyn	Md.
Mason, Frances	D.C.	Matthews, Jack Kean	Ind.
A.B. 1945, University of Kansas City		B.S. 1949, Rose Polytechnic Institute	
Mason, Gwendolyn Hunsicker	Va.	Matthews, Loren Allen	Md.
Mason, Katharine Natalie	Va.	A.B. 1940, Union College, Nebr.	
B.S. in Ed. 1946, Madison College		Matthews, Martin	Md.
Mason, Rothwell Brisbane	Md.	Matthews, Reynold Judson	D.C.
Mason, William Bullard	D.C.	Matthews, Samuel Sheridan	Va.
A.B. 1949, Dartmouth College		Mattia, Louis Joseph	D.C.
Mason, William Pratt	Maine	Mattimore, Walter Bernard	N.Y.
B.S. 1949, University of Maine		LL.B. 1947, The George Washington University	
Masone, William Joseph	Md.	Mattingly, Anne Mathilde	Md.
Masse, Marilyn	Va.	Mattingly, Grace Marie	D.C.
A.B. 1944, Henderson State Teachers College		Mattingly, Richard Curtis	D.C.



Mattingly, Thomas Ernest, Jr.	Md.	Mazur, Anthony Joseph	Md.
A.B. 1948, The George Washington University		Mazur, George, Jr.	Pa.
Mattox, Virginia Belle	Va.	Mazza, Louis Francis	Va.
Mattson, Arthur Richard	D.C.	McAdams, Joseph M.	D.C.
Matulis, Florence Frances	N.J.	McAllister, Edward Joseph	N.Y.
Matusic, Frank, Jr.	Pa.	McAmis, Thomas Arthur, Jr.	Tenn.
Matyas, Albert Ambrose	Va.	McAmis, William Jack	D.C.
B.S. 1935, United States Military Academy		McAnallen, Frances Gloria	Md.
Maudlin, Robert Vearl	D.C.	McAndrew, John Joseph	D.C.
Mauk, Wallace Hamilton	D.C.	B.S. 1949, Gannon College	Va.
Maupin, Ann Maury	Md.	McAnsh, Andrew Thomas	D.C.
Maupin, Dorothy Ray	D.C.	McArdle, Dorothy Kelly	D.C.
B.S. 1949, The George Washington University		McAuliff, Rita Catherine	D.C.
Maupin, James Cary	Calif.	McAuliffe, John Hilary	Maine
Maurer, Bowman Joseph	Pa.	McAvoy, Philip James	Va.
Maurer, George Joseph	Pa.	McBride, Robert James, Jr.	
Maurer, Jane Holly	Va.	A.B. 1948, The George Washington University	D.C.
Mauriello, Matthew Joseph	N.J.	McBride, Willard Carlos	
B.S. 1948, The George Washington University		B.S. 1948, University of Maryland	Kans.
Mauriello, Nicholas Michael	N.J.	McBroom, Janice Koran	Md.
Mauro, Louis Quarto	N.Y.	McBurnett, Roe David, Jr.	
Maury, Ann Henderson	Md.	B.S. in E.E. 1944, Georgia Institute of Technology	D.C.
Maury, Priscilla Bunker	Md.	McCaffrey, Elva	Ky.
Mavridis, Photios Adam	Md.	McCall, Barbara Ann	Fla.
Mawhood, Samuel Allen	Va.	McCall, Bryant Franklin	Md.
Maxcy, Frederic Reynolds	Md.	McCall, Chester Hayden, Jr.	Calif.
Maxson, Webster Prescott	Mass.	McCalley, John Wallace	
A.B. 1939, Amherst College		A.B. 1945, A.M. 1947, The George Washington University	Kans.
LL.B. 1949, University of Cincinnati		McCallum, Marian Norby	
Maxwell, Frederick Brooks, Jr.	Md.	B.S. 1937, Kansas State College of Agriculture and Applied Science	Miss.
Maxwell, Raymond Carl	D.C.	McCallum, Maurice Duncan	
May, Barbara	D.C.	A.B. 1943, The George Washington University	D.C.
May, Robert Richard	D.C.	McCallum, Rita Anne	
May, Thomas James	D.C.	A.B. 1949, Dunbarton College of Holy Cross	N.J.
A.B. 1949, The George Washington University		McCamy, Margaret Elizabeth	Va.
Maybee, John Stanley	D.C.	A.B. 1933, Rutgers University	D.C.
Mayberry, David Harper	Fla.	McCann, Brendan James	Min.
A.B. 1949, University of Florida		McCann, Marcella	D.C.
Mayberry, Grant Elmer	Md.	McCann, Mary Eileen	N.J.
Mayberry, Lawrence Edgar	Ill.	McCann, Robert Thomas	
Mayberry, Paul Raymond	Maine	McCarron, John Daniel	N.H.
Mayencourt, Herman	D.C.	B.S. 1948, Georgetown University	
Mayer, Fred Louis	D.C.	McCarten, William Gray	
Mayer, Joseph Henry	D.C.	B.S. 1945, University of New Hampshire	N.H.
A.B. 1939, University of Chicago		McCarthy, Daniel Francis	
Mayer, Joseph Lewis, Jr.	D.C.	B.S. 1936, University of New Hampshire	D.C.
Mayer, Robert Charles	D.C.	McCarthy, Daniel Joseph, Jr.	Mass.
B.S. 1948, Georgetown University		McCarthy, Eunice Mary	D.C.
Mayer, William Scanlon	N.Y.	A.B. 1948, Duke University	D.C.
Mayers, Richard Ralph	D.C.	McCarthy, John Aloysius	Va.
A.B. 1947, Dartmouth College		McCarthy, John Ernest	Ohio
Mayes, Basil Lamar	Calif.	McCarthy, John Francis	D.C.
Maymi, Protasio	Puerto Rico	McCarthy, John Robert	Va.
A.B. 1949, The George Washington University		McCarthy, Lawrence Daniel	D.C.
Mayne, John Cleland	Mich.	McCarthy, Margaret Angela	Va.
A.B. 1948, Albion College		McCarthy, Mary Ellen	D.C.
Mayo, Harold Emmett	Ill.	A.B. 1947, Duke University	Calif.
Mayo, Martha Ellen	Ind.	McCarthy, Robert Earl	
Mayo, William Elmer	Ga.	B.S. 1947, University of California	Md.
Mayo-Wells, Jean Olds	D.C.	McCarthy, Thomas Vincent	D.C.
A.B. 1926, Syracuse University		McCartney, Junius Acree	D.C.
Mayo-Wells, Wilfred James	D.C.	McCarty, Charles Dennis	
Mays, Oscar Ramsey	D.C.	B.S. in M.E. 1941, Northeastern University	
Mazalewski, Raymond Adam	Wis.	LL.B. 1948, Boston University	
Ph.B. 1938, LL.B. 1941, Marquette University			
Mazenderani, Abraham Khajavi	N.Y.		
Mazero, John Robert	Pa.		



McCarty, Henry Thomas B.S. 1943, Boston University	N.H.	McCorkle, Howard, Jr.	Pa.
McCarty, Jacqueline Logan	Va.	McCormack, James Stanley, Jr.	Pa.
McCarty, William Homer	Iowa	McCormick, Anna Moffatt	Va.
McCausland, Stanley Lee	Pa.	McCormick, Margaret Anne	Pa.
B.S. 1948, Ursinus College		B.S. 1942, Cedar Crest College	
McCawley, William Carson	D.C.	McCormick, Robert Nicholas	N.Y.
McCay, Effie Mae	Ga.	McCormick, Shirley Viola	Ga.
A.B. 1936, A.M. 1939, University of Georgia		McCoskey, Robert Edger	D.C.
McCay, Iris Jean	Va.	McCowin, Joseph Aaron	Utah
McCene, Buchanan Houston	D.C.	B.S. 1948, Utah State Agricultural College	
McClain, Edward Fifer, Jr.	D.C.	McCoy, Marshall Levi	Va.
McClain, George William, Jr.	Md.	McCoy, Mercer Garnett	Va.
McClanahan, Carl	D.C.	A.B. 1949, University of Virginia	
B.S. 1948, Georgetown University		McCoy, Thomas Raymond	D.C.
McClanahan, Mollie	D.C.	McCoy, William, Jr.	Va.
McClarin, William Hugh, Jr.	Pa.	A.B. 1943, Washington and Lee University	
McClellan, Ethel Shoemaker	Pa.	McCrackan, Mary Lee	Va.
McClellan, Lavonne Hedeon	Iowa	McCracken, Kelly Thomas, Jr.	Va.
A.B. 1947, The George Washington University		McCraw, Blanche	D.C.
McClellan, William Alfred	Md.	McCray, Ralph Emerson	Iowa
McCllland, Frances Lorraine	Pa.	McCready, Doris Pearl	Maine
McCllland, James Robert	D.C.	McCreight, Charles Edward	D.C.
McClenathan, Nelle Louise	Pa.	B.S. 1948, The George Washington University	
McCleakey, Ben Conner	D.C.	McCrone, Andrew Matthew	Pa.
McClifford, Jimmie Pauline	Va.	B.S. 1940, University of Pennsylvania	
McCintock, Maxine Margaret	Calif.	McCrone, Thomas Joseph	Pa.
McCloskey, Owen Thomas	Ohio	McCubbin, James Melvin	D.C.
B.S. 1932, Ohio State University		McCubbin, John Grayson	D.C.
McCloskey, Sylvester John	Pa.	B.M.E. 1949, The George Washington University	
A.B. 1949, The George Washington University		McCubbin, William Parke	D.C.
McClure, Rex Clark	D.C.	McCue, Ignatius Lawrence	Ohio
McClure, William Pendleton	D.C.	McCue, John Stuart	N.Y.
B.S. 1949, University of Pennsylvania		McCullagh, William Robert	Md.
McClurg, Gregg Harper	Va.	McCulloch, John Kimsey	Ohio
B.S. in E.E. 1931, M.S. 1932, University of Maryland		McCullough, Frank Witcher, Jr.	W.Va.
McCoach, Nancy Ann	N.J.	A.B. 1943, Tulane University	
McColley, Robert Westcott	Md.	McCullough, Herbert Carlton	D.C.
McCollum, Oscar D., Jr.	Mo.	McCullough, Richard Cornwell	D.C.
A.B. 1943, University of Kansas City		McCullough, William Harrison	Md.
McComb, Archibald Howell, Jr.	N.J.	McCully, Cyrus Harold	Va.
B.S. 1937, Webb Institute of Naval Architecture		A.B. 1934, A.M. 1935, Colorado State College of Education	
McComb, Margaret Smith	N.J.	McCune, Violet Kellogg	D.C.
McCombs, Grant Wilbur	Va.	A.B. 1948, The George Washington University	
McConaughay, James William	Calif.	McCurdy, Jaynelen	D.C.
B.S. 1939, United States Naval Academy		McCurry, Helen Leonard	D.C.
M.S. 1946, California Institute of Technology		McCutchen, Sara Kennedy	S.C.
McConel, Mary Alice	Fla.	McCutcheon, Sara Barbara	Md.
A.B. 1932, Hollins College		B.S. 1948, University of Maryland	
McConnell, Drucilla Mae	Va.	McDade, William Frank, Jr.	Va.
McConnell, Elisha Riggs	D.C.	McDaniel, Anna Toms	N.C.
A.B. 1929, Davidson College		A.B. 1945, Meredith College	
LL.B. 1934, University of Virginia		McDaniel, Ernest Glenn	Md.
McConnell, Elizabeth C.	D.C.	A.B. 1936, Fairmont State College	
A.B. 1921, Pennsylvania State College		McDaniel, James Theron	Calif.
McConnell, Henry James	Ill.	McDaniel, John Bennett	Ky.
McConnell, John Aloysius	Va.	B.E.E. 1946, University of Louisville	
McConnell, John Wilson	Mont.	McDaniel, John Milton	Tenn.
McConnell, Leo Joseph	D.C.	McDaniel, Roy Harmon	Va.
McConnell, Richard D.	Va.	McDaniel, T. J.	Tex.
McConnell, Robert Perche	D.C.	McDaniel, Walter Ray	N.C.
McCool, Cornelius Joseph	Pa.	McDaniels, James Ellis	D.C.
McCord, Franklin Otto	Pa.	McDermott, Delia Ethel	Mass.
B.S. 1925, Southern State Teachers College	Iowa	McDermott, Edward Park	Va.
	Va.	B.S. in E.E. 1947, University of Arkansas	
		McDermott, Jack Chipman	Tex.
		McDermott, Norbert Coyne, Jr.	Pa.
		McDermott, Thomas Joseph	D.C.



McDermott, William Thomas	Mass.	McGann, Marjorie Louise	D.C.
B.S. 1935, University of New Hampshire		McGannon, William Arthur	Ohio
M.S. in Ed. 1936, Boston University		McGarry, Barbara Durnell	D.C.
McDevitt, John Newman	Md.	A.B. 1944, Radcliffe College	
McDili, Thomas Kapp	Ohio	A.M. 1947, Columbia University	Ill.
A.B. 1948, Miami University		McGee, Charles Edward	
McDonald, Brian Thomas	Va.	B.S. in Ed. 1934, Northern Illinois State Teachers College	Md.
McDonald, Carl Edward	Md.	McGill, George	
McDonald, Dianys Frobisher	D.C.	A.B. 1945, Furman University	D.C.
McDonald, Donald Deon	D.C.	McGilvery, Francis Edward	D.C.
McDonald, Duncan Keith	D.C.	McGinn, Leo Joseph	Va.
McDonald, Ethel Raynor	Va.	McGinnis, Norman Francis, Jr.	D.C.
A.B. 1939, University of Hawaii		McGinnis, Robert Allen	Pa.
McDonald, James Joseph, Jr.	Va.	McGoff, William Richardson	Va.
McDonald, Lynette	Conn.	McGoldrick, Joseph Aloysius	
McDonald, Neil Jarvis	S.C.	B.S. 1932, United States Naval Academy	R.I.
B.S. 1948, Duke University		McGovern, Lawrence Edward	Iowa
McDonald, Oliver Gene	D.C.	McGowan, Melvin Joseph	
McDonald, Oris Paul, Jr.	W.Va.	A.B. 1940, Coe College	Mass.
McDonald, Raymond Joseph	D.C.	McGowen, William Henry	N.J.
McDonnell, Joseph Vincent	Ohio	McGrail, Edward Hugh	
McDonough, John Joseph	N.Y.	A.B. 1943, St. Peter's College	
McDonough, Joseph James	D.C.	LL.B. 1948, Georgetown University	Mass.
McDonough, Raymond John	N.Y.	McGrath, Charles Joseph	N.Y.
McDonough, Russell Charles	Mont.	McGrath, Daniel Gerard	
McDonough, Thomas Cornelius	Calif.	LL.B. 1929, LL.M. 1931, St. John's University, N. Y.	N.Y.
A.B. 1949, Catholic University of America		McGrath, Mabel Leahy	Md.
McDonough, William Wallace	Va.	McGrath, Malcolm Cushing	
A.B. 1948, University of Virginia		B.S. 1936, United States Naval Academy	D.C.
McDowell, Duane Orville	S.D.	McGrath, Peggy Anne	N.Y.
McDowell, Janet Beverly	D.C.	McGrath, Thomas Joseph	Va.
McDowell, Mildred Ann	D.C.	McGraw, Carrington Belt, Jr.	
McDuffee, Lois June	Va.	A.B. 1949, The George Washington University	Ky.
McDuffie, Rhoda Edgar	Md.	McGraw, Robert C.	Ariz.
A.B. in Ed. 1935, University of South Carolina		McGregor, John Gregor	
McDugald, Jesse	Fla.	A.B. 1949, Stanford University	Va.
McElhaney, John Clair	Pa.	McGrew, Clinton Jackson, Jr.	Pa.
McElhaney, Mary Katherine	N.Y.	McGrew, William Michael	Va.
McElrath, Miles Kenneth, Jr.	Conn.	McGriff, LaDonna Lee	Wis.
McElroy, Anita Tillman	Kans.	McGuigan, Francis Joseph	Md.
McElroy, James Thomas	Conn.	McGuire, Donald	D.C.
McElroy, Jenny Emma	Va.	McGuire, Ethel Lucille	Va.
McElroy, John Harper	Ala.	McGuire, Francis James	Va.
B.S. 1929, United States Naval Academy		McGuire, James A.	N.Y.
McElroy, Virgil Maurice	Kans.	McGuire, James Jackson	Maine
A.B. 1936, LL.B. 1938, University of Kansas		McGuire, Kenneth James	D.C.
LL.M. 1949, The George Washington University		McGuire, Ruth Evelyn	Pa.
McElvain, Mary Viola	Ill.	McGunigal, William Ellsworth	Va.
A.B. 1942, Mount Mary College		McGurl, Vincent William	
McEnroy, Ursula Dolores	Mass.	McGurrin, James Joseph	
McEnitee, Ann Elizabeth	D.C.	A.B. 1949, The George Washington University	D.C.
McEntee, John Cornelius	Md.	McHale, Robert Berger	D.C.
McFadden, Archibald George W.	Va.	McHenry, Charles Joseph, Jr.	Va.
B.S. 1942, United States Naval Academy		McHugh, Evelyn Marie	Va.
McFadden, Douglas Howard	N.Y.	McHugh, James Morris	
McFadden, William Dodge	Md.	A.B. 1936, The George Washington University	Pa.
McFadyen, Ross Musgrove	S.C.	McHugh, John Richard	Va.
McFarland, Alice Blackwell	Va.	McIlhatten, David White	D.C.
McFarland, Edgar Elijah	W.Va.	McInteer, Rachel Catharine	
McFarland, Frank A.	Va.	B.S. 1932, Columbia University	D.C.
McFarland, Hal Horace M., Jr.	D.C.	McIntosh, Mary Louise	
B.S. 1940, Ohio State University		A.B. 1946, American University	D.C.
McFarland, Thomas James	Pa.	McIntosh, Robert Arthur	N.C.
McFolin, Roy Lee	Tenn.	McIntosh, Ruth Janice	N.C.
McGandy, Edward Lewis	Md.	McIntyre, Carl Franklin	D.C.
McGann, Malcolm Hobart, Jr.	Mass.	McIntyre, Ernest Richard	
A.B. 1942, Haverford College			



McIntyre, Fred Louis A.B. 1948, The George Washington University	Va.	McLaurin, Lillian Catherine A.B. 1937, LL.B. 1939, Vanderbilt University	Miss.
McIntyre, Joseph Alexander	Kans.	B.S. in L.S. 1941, George Peabody College for Teachers	
McIntyre, Martha Clementine	Pa.	McLaurin, Turner Sheppard	Va.
McIvor, Lillie Mae B.S. 1938, Radford College	Va.	B.S. 1945, Mississippi College	N.C.
McKay, Cameron Lawrence	Minn.	McLean, Charles Graham A.B. 1948, The George Washington University	
McKay, Fred James	N.J.	McLean, Dorothy M.	D.C.
McKay, Joseph Patrick	Mass.	McLean, George Willis	Ga.
McKee, Francis Alvin	D.C.	McLean, Gordan Alexander	D.C.
McKee, James Oakes A.B. 1942, Knox College	Ill.	McLean, John Churchill	Ala.
McKee, Kemper Sherwood	W.Va.	McLean, William West	D.C.
McKee, Lavuis Annette	Va.	McLees, John Skelton	Ark.
McKeehan, John Badger	Conn.	McLelland, Gordon B. A.B. 1942, Princeton University	Md.
McKeel, Charles Baynor	N.C.	McLeod, Jean Frances	Md.
McKeith, Alfred Bertram	Iowa	McLeod, Richard Norman	Md.
McKellips, Harold Gilman, Jr.	Calif.	McLeod, William Earl	N.C.
McKelway, William Prentiss A.B. 1943, Washington and Lee University	D.C.	McLoughlin, Christopher James	N.Y.
McKenna, Helen Marie	D.C.	McLucas, Charles Francis, Jr.	Pa.
McKenna, Mary Patricia	D.C.	McLynn, James Michael	D.C.
McKenzie, Inez Calle	Va.	McMahan, Hardy Lee, Jr. B.S. 1948, Michigan State College	Tenn.
McKenzie, Lawson Morell B.S. 1934, A.M. 1938, The George Washington University	Md.	McMahon, Frederic Darrard	D.C.
McKenzie, Margaret Mary	Ill.	McMahon, Kathryn Mary	N.Y.
McKeon, Alfred Jerome	Va.	McMahon, Thomas Anthony	N.J.
McKeon, Arthur Thomas B.M.E. 1948, Stevens Institute of Technology	D.C.	McMain, James Aloysius A.B. 1942, Georgetown University	D.C.
McKeon, Charles Francis	Conn.	McMakin, William Howard	D.C.
McKeon, Matthew Bernard	Va.	McMann, Phyllis Maria Rebecca	Maine
McKeown, Thomas Patrick	Md.	McManus, John Waddell B.S. in M.E. 1938, United States Naval Academy	D.C.
McKernan, Frank M. A.B. 1935, Ed.B. 1936, A.M. 1939, University of Cincinnati	Ohio	McManus, Louise Kessler	D.C.
McKibben, Mason Edward, Jr.	Colo.	McMeel, John Wallace	Md.
McKimmey, Frank Edward	Ark.	McMichael, Lottie Swope B.S. 1935, Madison College	Va.
McKinley, Alfred Machell	D.C.	McMillan, Robert Hampton	D.C.
McKinley, Francis	Utah	McMillan, William Walter	D.C.
McKinley, Royce Baldwin A.B. 1942, University of Michigan	Md.	McMorrow, Robert Gilmore	D.C.
LL.B. 1948, Harvard University		McMullen, Alexander Ross	N.Y.
McKinney, George Clagett	D.C.	McMullen, Thomas Richard A.B. 1946, The George Washington University	D.C.
McKinney, Nan Honora Katherine	Va.	McMullin, Ivy Harpole	Miss.
McKinney, William Ralph	Ky.	McMurphy, Kathleen Burrows A.M. 1948, University of Maryland	Md.
McKinnie, William T. A.M. 1940, The George Washington University	N.D.	McMurray, Delzell Barthel	Va.
McKneely, Myrtilde Marilyn	Va.	McMurray, Hazel Albertine	S.C.
McKnight, Michael Joseph	D.C.	McNabb, Gertrude Elliott A.B. 1947, The George Washington University	D.C.
McLain, Edward Phillip	D.C.	McNairy, John Vickory B.S. 1937, Guilford College	Va.
McLane, Donald Cecil, Jr.	Va.	McNally, Eileen Bridget	Va.
McLaren, Margaret Campbell	D.C.	McNally, James Joseph, Jr.	Va.
McLaughlin, Arthur Ellsworth B.S. 1939, North Dakota Agricultural College	N.D.	McNally, Marietta Clara B.S. 1947, Temple University	D.C.
McLaughlin, Florence Westcott B.S. 1931, Michigan State Normal College	Va.	McNally, Patronienne Isabel	Va.
McLaughlin, Hugh Daniel, Jr.	D.C.	McNamara, James Desmond B.S. 1940, New York University	Va.
McLaughlin, Marjorie Audley	D.C.	McNamara, Jerome Tolan	D.C.
McLaughlin, Mary Macmillan	D.C.	McNamara, John Edward, Jr.	D.C.
McLaughlin, Monica Muriel	S.D.	McNamara, Richard Vaughan	Iowa
McLaughlin, Robert Hughes	Pa.	McNamee, Gilbert Wilson	Va.
McLaughlin, William Francis A.B. 1943, Swarthmore College	Va.	McNamee, Patience E. A.B. 1944, Immaculate Heart College	Neu.
		McNaney, William Edward	Md.
		McNeely, James Edward A.B. 1949, University of Missouri	Mo.



McNeil, George Elroy, Jr. A.B. 1942, The George Washington University	Md.	Medford, Charles Eugene Medina, Armando Medvick, Anne Hope B.S. 1943, Pennsylvania State Teachers College, California	Va. Md. Pa.
McNeill, John Joseph	D.C.	Medwick, Emma	D.C.
McPhaul, Thomas Francis	D.C.	Mehan, Francis Raymond	Md.
McPherson, Clara Alyce	Ohio	Mechan, Robert Howard	Va.
McPherson, James Willis, Jr. LL.B. 1949, The George Washington University		Meeker, John Harbeck A.B. 1940, Drew University	N.J.
McPherson, Trent Otho	Md.	Meekins, William Lawrence	N.C.
McPhilimy, Harry Simpson, Jr. A.B. 1947, The George Washington University	Pa.	Meerkrees, Samuel B.Eng. 1942, University of Toledo	Ohio
McNelis, James Ralph	W.Va.	Meese, Kenneth Jordan	Md.
McNiff, Philip Aloysius	N.Y.	Meese, Norman Sayford	Md.
McNulty, Joseph John	Pa.	Megee, Vernon Edgar	Okl.
McNulty, Olive Ferne	D.C.	Megella, Ella	Pa.
McNulty, Paul Edmund	D.C.	A.B. 1948, The George Washington University	
McNulty, Philip Lambert	Iowa	Megonigal, James Clifford	Va.
McOwen, John Joseph	D.C.	Mehaffey, Benjamin Chambers	Va.
A.B. 1949, Marshall College		Mehbod, Ahmed	Iran
McPhail, Doris Stewart B.S. 1936, North Dakota Agricultural College	D.C.	A.B. 1936, A.M. 1937, University of Paris	D.C.
McPhail, Harvey Franklin	D.C.	Mehrens, Inez Koinzan	
McPhail, John Finley, Jr.	Tenn.	A.B. 1924, Midland College	
McQueary, Dennis Everett	Ky.	A.M. 1941, University of Southern California	D.C.
McQueen, Robert Keith A.B. 1944, The George Washington University	Iowa	Meier, Albin Richard	N.Y.
McQuie, Robert Glenn, Jr.	Ky.	Meier, Frederick Peter	Switzerland
McQuilkin, William Thomas	Va.	Meier, Jean Ulrich	D.C.
A.B. 1937, Emory and Henry College		Meier, Robert Wally	D.C.
McRae, John Edwin	Md.	Meier, Sally Willy	Idaho
B.Ch.E. 1948, University of Detroit		Meigs, Edward Douglas	N.I.
McRae, Luther Cecil	Va.	Meirowitz, Morris	D.C.
A.B. 1927, M. in Ed. 1928, Duke University		Meiselman, Sherman Morton	D.C.
McRay, Edward James, Jr.	Mich.	Meisels, Milton A.B. 1918, University of Wisconsin	D.C.
McReynolds, Zach Aycock	Tex.	Meissner, Charles Robert	D.C.
B.S. 1942, Agricultural and Mechanical College of Texas		Meissner, Paul	N.Y.
McRory, William Francis	Ga.	Meister, Malcolm	D.C.
McSoud, Clovis Fred	Ohio	Mele, Dorothy Cecilia	D.C.
A.B. 1949, The George Washington University		Melendez, Maria Teresa	D.C.
McTeer, Hilda Doris	D.C.	Melheim, Arnold Curtis	Mich.
McTiernan, Jeffrey	Va.	Mellema, Bendert Henry	N.Y.
McVey, Ellen Teresa	D.C.	Mellen, David Ralph	Va.
McVicker, Robert Edwin	D.C.	Mellen, Robert David A.B. 1949, The George Washington University	
McWhirt, Joseph Russell	D.C.	Mellinger, Harry Albert	Calif.
A.B. 1948, The George Washington University		Mellinger, Walter Sylvester	
McWhorter, Harry Stanley	Md.	A.B. 1949, San Diego State College	D.C.
Meador, Norward A. B.S. in C.E. 1934, Virginia Military Institute	W.Va.	Mellon, Donald Hale	D.C.
Meadows, Jack Wilbur	D.C.	Mellor, John Edward A.B. 1942, The George Washington University	
Meadows, Lottie Electra	Va.	Meloy, John Arthur	Md.
Meadows, Richard Carl	D.C.	Melton, William Roscoe	Mo.
Meadows, Waldene Hastings	Kans.	Melvin, Flavell Bryan, Jr.	Va.
Meagher, Mary McRae	Va.	Melvin, Harry Davis	N.C.
Meakin, Francis Hardie II	Va.	Melvin, Mary Louise	D.C.
Meana, John Donald	Va.	Mencher, Jordan Ronald	D.C.
Meaney, Thomas Francis B.S. 1949, Georgetown University	D.C.	Mendeloff, Henry B.S. 1936, M.S. in Ed., College of the City of New York	
Means, Robert Harvey	Mass.	Mendelsohn, Bernice Ruth	D.C.
Meara, Francis Leo	D.C.	Mendelsohn, Sydney Henry	
Mears, John Kenyith	D.C.	Mendelson, Anna	
Mears, John Stephen, Jr. A.B. 1949, The George Washington University	Ind.	A.B. 1942, Hunter College	D.C.
Mears, Richard Oscar	Tenn.	Mendelson, Michael	Ohio
		Mendenhall, John Wilson	Tex.
		Mendenhall, Margaret Harrilyn	



Meneley, Reynold Charles, Jr.	Va.	Meyer, Bertha Marie	Md.
B.S. 1949, Pennsylvania State College		Meyer, Calbot Willester	D.C.
Menelee, Karl Donald	D.C.	Meyer, Carolyn Wagner	D.C.
Mensh, Herbert	D.C.	Meyer, George Hickey	N.J.
Merat, Parviz	Iran	Meyer, Hanny	D.C.
Mercer, Carol Richardson	D.C.	Meyer, Ival Loren	Nebr.
Mercer, Janice Denise	Va.	Meyer, Karl Barrie	Ohio
Mercer, Joseph Jackson, Jr.	Ga.	A.B. 1947, Westminster College	
A.B. 1948, Emory University		Meyer, Katherine Eleanor	Md.
Merchant, Edward Joseph	D.C.	Meyer, Kathleen Faith	Va.
Merck, Mary Christine	D.C.	Myer, Leo Herbert	Va.
Mercogliano, Charles Eugene	D.C.	Meyer, Lucille W.	Tex.
Mercogliano, Victor Mario	D.C.	Meyer, Myrtle Isabelle	D.C.
Meredith, Ellis Edson	D.C.	B.S. 1942, Rhode Island State College	
A.B. 1947, University of Chicago		Meyer, Rauer Henry	Ohio
Merendino, John Jerome	N.Y.	A.B. 1939, Westminster College, Pa.	
Merle, Harold Francis	D.C.	A.M. 1941, University of Chicago	
L.B. 1923, The George Washington		Meyering, Catherine Cecelia	N.Y.
University		A.B. 1930, Seton Hill College	
Merlino, Ralph James	N.J.	Meyers, Beverly Anne	N.D.
Meroney, Louis Roy	Tex.	Meyers, Daniel	N.Y.
Merow, James Forbes	Va.	Meyers, Hugh Truman	D.C.
Merrell, Richard Yates	Utah	Meyers, Leonard Bernard	D.C.
Merrell, Robert Franklin	D.C.	Meyers, Marjorie Castle	Md.
Merrell, Virginia	N.Y.	Ed.B. 1930, Ithaca College	
Merriam, Lee Forrest	D.C.	Meyerson, Carla Ruth	D.C.
Merrell, Eugene Clifford, Jr.	Maine	A.B. 1943, University of Michigan	
A.B. 1949, University of New Mexico		Meyrowitz, Alvin Abraham	N.Y.
Merrill, Evelyn Merrill	Va.	A.B. 1938, Cornell University	
B.S. 1939, University of Virginia		M.B.A. 1941, New York University	
Merrill, Milford Austin	Va.	Meyrowitz, Gladys Blossom	Md.
Merritt, Arthur Donald	D.C.	B.S. 1940, New York University	
A.B. 1949, The George Washington		Meyrowitz, Leon	Md.
University		A.B. 1949, The George Washington	
Merritt, Everett Laverne	D.C.	University	
Merritt, Fontaine Lee	Va.	Michael, Irving	D.C.
Merritt, Hobart Whitten	Va.	Michael, Ray Bertram	Md.
Meseroll, Ida Adele	N.J.	Michaels, Bernice	D.C.
A.B. 1933, Albright College		Michaels, Michael Nicholas	N.Y.
Messer, Harold Madison	Md.	Michalek, Joseph Leonard	Pa.
A.B. 1942, Oberlin College		Michaud, Lewellyn Richard	Maine
A.M. 1946, Columbia University		Michel, Edward Andrew, Jr.	N.Y.
Messing, Nadia Sybil	N.Y.	B.S. 1935, United States Naval	
Mestesky, Estelle Rose	D.C.	Academy	
Metlitz, Stanley	N.Y.	Michelbach, Esther Cain	Va.
A.B. 1939, College of the City of		B.S. 1941, University of Virginia	
New York		A.M. 1948, The George Washington	
Metaxatos, Jerry V.	D.C.	University	
Metcalf, Lois Poole	D.C.	Michelitch, Edward	Va.
Metcalf, Richard	D.C.	Michelitch, Herman John	W.Va.
A.B. 1947, A.M. 1948, University of		Michelitch, Joseph	Va.
Denver		Michels, Ruth Maree	Iowa
Meteyer, David Hollway	N.Y.	Michels, Vern Edward	Mont.
Metivier, Joseph Louis, Jr.	Maine	Michelsen, Cleo Phyllis	D.C.
Metrick, Lawrence Bennet	N.Y.	A.B. 1943, The George Washington	
Mettenet, William Joseph	Pa.	University	
A.B. 1943, University of Pittsburgh		Michelsen, Paul Frederick	D.C.
Metz, Donald William	D.C.	Michelson, Samuel	N.Y.
Metzerott, Henriette Kirk	D.C.	A.B. 1949, The George Washington	
Metzerott, Kirk Oliver	Minn.	University	
A.B. 1948, The George Washington		Michie, James Reginald	D.C.
University		Michini, Louis Joseph	Del.
Metzger, Clyde Christian	Pa.	A.B. 1941, University of Delaware	
B.S. 1948, Pennsylvania State College		M.S. 1949, The George Washington	
Metzger, Heloise Michelle	D.C.	University	
Metzger, Joseph Francis	Md.	Michonski, Zigmund Sagittarius	Conn.
Metzner, Norma R.	D.C.	B.S. 1949, American International	
A.B. 1940, University of Wisconsin		College	
Mewshaw, Dorothy Ruth	D.C.	Mickelsen, Carolyn Ann	Va.
A.B. 1945, Baylor University		Mickelsen, Frank Ray	Va.
B.S. in L.S. 1946, Louisiana State		Mickler, Thomas Albert	Pa.
University		Micko, Helen Louise	D.C.
Meyer, Ardo Xanar	Nebr.	Mickum, Ann Love	



Middlemas, Burton Yeager	Va.	Miller, Christine Haines	D.C.
Middleton, Edward Duncan, Jr.	D.C.	B.S. 1941, Middle Tennessee State College	Ohio
B.S. 1944, United States Coast Guard Academy		Miller, David Robert	
Middleton, Glenn Arthur, Jr.	D.C.	B.S. 1949, University of Akron	Minn.
Midland, Marvin Gilbert	Ill.	Miller, Doris Elaine	
Miele, Albert John	D.C.	A.B. 1940, University of Minnesota	D.C.
Miesfeld, Roger Randolph	Wis.	Miller, Doyle Nate	Colo.
B.S. 1949, University of Wisconsin		Miller, Dudley Ward	
Miguel, Geronimo	Va.	B.S. 1949, Georgetown University	Md.
Mihall, John J.	Pa.	Miller, Edna Emily	
A.B. 1949, Franklin and Marshall College		A.B. 1925, Western Maryland College	Pa.
Miho, Katsugo	Hawaii	Miller, Edwin Cyrus	
A.B. 1949, University of Hawaii		A.B. 1949, Muhlenberg College	Pa.
Mikus, Isabelle Mary	D.C.	Miller, Elinora LaVerne	D.C.
B.S. 1946, Simmons College		Miller, Elmon Adams, Jr.	D.C.
Mikusinski, Wilhelmina Mae	Pa.	Miller, Esther Lydia	D.C.
Milam, Robert Howard	D.C.	Miller, Felicia Mary	
Milano, Dominick Joseph	N.Y.	A.B. 1946, A.M. 1948, The George Washington University	D.C.
Milbourn, Gloria McDonough	Va.	Miller, Genevieve C.	
B.S. 1947, University of Virginia		B.S. 1941, Western Reserve University	Va.
Milbourn, Louise	D.C.	Miller, George William	D.C.
Milburn, Chester Franklin	Md.	Miller, Gerald Joseph	Va.
Milburn, Elinor Hope	Md.	Miller, Gordon Henry, Jr.	Va.
B.S. 1933, Wilson Teachers College		Miller, Grant William	
Milburn, George Ernest	Md.	B.S. 1949, University of Washington	N.Y.
Milburn, Virginia St. Clair	Pa.	Miller, Henry Leroy	D.C.
Milburn, Vivian Elaine	Ala.	Miller, Herbert J.	D.C.
A.B. 1946, Baylor University		Miller, Herbert John, Jr.	
Milby, Katherine Rebecca	D.C.	A.B. 1948, The George Washington University	D.C.
B.S. 1937, Virginia State Teachers College, Farmville		Miller, Herman P.	
Miles, Edward Michael	Va.	B.S. 1942, College of the City of New York	D.C.
B.S. 1930, University of Washington		Miller, Howell Douglas	
L.L.B. 1935, Columbia University		D.V.M. 1941, Agricultural and Mechanical College of Texas	D.C.
Miles, Nelle H.	Va.	Miller, Ida Schupp	
B.S. in Ed. 1926, Ohio State University		A.B. 1947, The George Washington University	Ga.
Miles, Walter Leonard, Jr.	D.C.	Miller, Iler Monroe	Md.
Miles, Wandaleen Dean	D.C.	Miller, Irvin Randolph, Jr.	D.C.
B.S. 1941, Radford College		Miller, Jean Agnes	Va.
Miletich, Ann Theresa	D.C.	Miller, Jerry Allan	D.C.
Mileur, Alfred Donald	Okl.	Miller, John Alexander	Va.
Miley, Charles Edward, Jr.	Va.	Miller, John Clayton	
B.S. 1935, Roanoke College		A.B. 1930, A.M. 1933, Oberlin College	Md.
Milfelt, William Benjamin	Mo.	M.S. 1949, Syracuse University	Calif.
Militzer, Gustave David	D.C.	Miller, Keith High	
Millar, Glen Collins	Calif.	Miller, Leland Henry	
Millard, Anne Marie	D.C.	A.B. 1942, State College of Washington	W.Va.
Miller, Adelbert Ellsworth	Md.	Miller, Leonard Lee	Va.
Miller, Aden Rohrbaugh, Jr.	Md.	Miller, Lewis Baruch	S.C.
Miller, Albert	Mass.	Miller, Lucille Mary	
Miller, Alfred Smith	Va.	A.B. 1935, Limestone College	Ill.
Miller, Allen Howard	Iowa	Miller, Lynn Harry	D.C.
Miller, Andrew John	N.Y.	Miller, Margaret Elizabeth	
A.B. 1949, The George Washington University		A.B. 1948, Bryn Mawr College	Mass.
Miller, Ann Margaret	Calif.	Miller, Mary	Va.
Miller, Anne Louise	D.C.	Miller, Maurice Myles	
Miller, Bernard Leo	Mich.	B.S. 1948, The George Washington University	Md.
Miller, Betty Lou	Minn.	Miller, Melvin Eugene	D.C.
Miller, Caroline Parkinson	D.C.	Miller, Myron Merideth	
B.S. 1943, The George Washington University		B.S. 1948, Oklahoma Agricultural and Mechanical College	Md.
Miller, Carolyn Ann	Iowa	Miller, Nathan	D.C.
Miller, Charles Harrison	Pa.	Miller, Norman Robert	Md.
Miller, Charles Phillip	Mass.	Miller, Olin Columbus	
Miller, Charles Robert	D.C.	B.S. 1922, A.M. 1938, Ed.M. 1939, George Peabody College for Teachers	
Miller, Charles V.	Mich.		
B.S. in E.E. 1935, Carnegie Institute of Technology			



Miller, Paul Nunn	D.C.	Mills, Louise Helene	D.C.
Miller, Rachel Craft	Pa.	Mills, Mary Louise	N.Y.
Miller, Ralph Jewart	D.C.	A.B. 1945, Bryn Mawr College	
Miller, Richard Bellum	D.C.	Mills, Ruth Elizabeth	Va.
A.B. 1948, University of Maryland		Mills, Walter Wylie III	Va.
Miller, Richard Eugene	D.C.	Millsop, Keith Duane	Pa.
Miller, Robert Earl	Va.	A.B. 1948, Grove City College	
Miller, Robert Junior	Ind.	Milner, George R.	Okla.
Miller, Robert Lee	Va.	A.B. 1947, University of Oklahoma	
Miller, Robert Preston	N.Y.	A.M. 1949, Columbia University	
B.S. in M.E. 1943, Cornell University		Milor, Rufus Edward	D.C.
Miller, Robert Thomas	N.J.	Milos, John Francis	Md.
B.S. 1949, Rutgers University		A.B. 1931, Dartmouth College	
Miller, Robert Wayne	N.C.	A.M. 1932, Columbia University	
Miller, Rodney Arthur	Md.	Milto, William Edward	D.C.
A.B. 1949, University of Pennsylvania		Minasian, George	D.C.
Miller, Roy Hamilton	D.C.	Minchew, Willoughby Lamar	D.C.
Miller, Sally Isabelle	D.C.	A.B. 1949, Mercer University	
Miller, Samuel Duncan	D.C.	Miner, Verna Howard	Nev.
Miller, Seymour Marvin	D.C.	A.B. 1937, University of Denver	
Miller, Sydelle Ellis	N.Y.	Miner, Leora Ruth	D.C.
Miller, Theodore Arnold	S.C.	Miner, Newton Arthur	D.C.
Miller, Virgil Thomas	Pa.	Mines, Kenneth Seymour	N.J.
B.S. 1949, East Tennessee State College	Tenn.	Mink, James Anthony	D.C.
Miller, Virginia Jane		Minkler, Whitney Sheldon	Conn.
A.B. 1945, College of Wooster	Ohio	Minner, Delbert Massey	Del.
Miller, Walter Wallace	D.C.	A.B. 1935, University of Delaware	
Miller, Warren Christie	D.C.	Minnich, Mary Jane	Ohio
Miller, William Francis	Pa.	A.B. 1949, Seton Hill College	
A.B. 1949, The George Washington University		Minnich, Robert Evans	Pa.
Miller, William Munroe	N.Y.	Minnick, John Bradley	Va.
B.S. 1948, Baldwin-Wallace College		A.B. 1935, Amherst College	
Miller, William Wilson	D.C.	Minnicar, Ray Parmelee	Wash.
Millette, LeRoy Francis	Conn.	Minnis, Richard W.	Ohio
Millican, Archer Smithson	D.C.	Minor, Elizabeth Biggers	Va.
A.B. 1914, Randolph-Macon College		Minor, Robert Center	Md.
Millican, John Charles	D.C.	Minor, Sophia Crouch	Va.
Miligan, Joseph Robert	D.C.	Minozzi, Fabio	Italy
Miligan, William Francis, Jr.	Md.	Doctor of Political Sciences 1931,	
A.B. 1949, Colgate University	N.Y.	University of Rome	
Mills, Hugh Lowell, Jr.	Tex.	Minsky, Marguerite Marcia	Mass.
B.S. in E.E. 1945, Southern Methodist University		B.S. in Ed. 1938, Boston Teachers College	
M.S. in E.E. 1947, University of Texas		Minthorn, Marjorie Frances	D.C.
Millman, Max Roland		B.S. 1948, University of Nebraska	
B.S. 1937, College of the City of New York	N.Y.	Minthorn, Ramona Cornelia	Oreg.
Mills, Annie Louise	D.C.	Minton, George	D.C.
Mills, Barbara Elizabeth	Va.	A.B. 1948, The George Washington University	
Mills, Carl	D.C.	Mintz, Sidney	Mich.
Mills, Cathryn Lucille	Va.	A.B. 1938, Ohio University	
Mills, Felice Columbia	D.C.	Mintz, Sidney J.	Ill.
Mills, George F.	Va.	Mion, Pierre Riccardo	D.C.
Mills, Geraldine Harmon	D.C.	Mirner, Ruth	N.Y.
B.S. in Ed. 1941, New York State Teachers College, Buffalo	N.Y.	Misch, Chilton Luther	Pa.
A.M. 1945, Columbia University		A.B. 1948, The George Washington University	
Mills, J. Warner III	Va.	Mise, Raymond Winfield	D.C.
Mills, Jack Leroy	Ohio	Misek, Albert Joseph	D.C.
Mills, James Leroy, Jr.	D.C.	Misey, Edward Gabriel	Wis.
B.S. 1944, Webb Institute of Naval Architecture		A.B. 1942, A.M. 1945, University of Wisconsin	
Mills, James Roy, Jr.		Misfeldt, William Duane	Nebr.
L.L.B. 1937, De Paul University	Ill.	Mishou, Frank Henry	Va.
Mills, James Slagle		A.B. 1930, Columbia University	
Mills, Joan	D.C.	A.M. 1942, The George Washington University	
Mills, John Everette	Md.	Miskell, Robert Joseph	N.Y.
Mills, John Leonard	N.J.	B.S. 1949, Georgetown University	
Mills, Katherine Jayne	D.C.	Miskovsky, Milan Carl	Ill.
Mills, Lee George	D.C.	B.S.F. 1948, M.F. 1949, University of Michigan	
	Va.	Misner, Virginia Bernice	Nebr.



Misson, Anne Josephine	D.C.	Moffett, Ethel Agnes	Va.
Mitchell, Anita Floyd	D.C.	B.S. in Ed. 1936, Brooklyn College	N.Y.
Mitchell, Charles Bradford	D.C.	Moglen, Norman	
Ph.B. 1928, A.M. 1929, Wesleyan University		A.B. 1940, College of the City of New York	Pa.
A.M. 1938, Ph.D. 1939, Harvard University		Mogul, Rubin	
Mitchell, Charles Franklin	D.C.	A.B. 1948, Pennsylvania State College	N.D.
Mitchell, Clyde Albert	Va.	Mohagen, Edna Alice	
Mitchell, David Lee	Fla.	B.S. 1937, The George Washington University	India
Mitchell, Edward Alexander, Jr.	D.C.	Mohan, Krishna	
A.B. 1943, University of Virginia		A.B. 1945, University of Delhi	
Mitchell, Frank Raymond, Jr.	Va.	A.M. 1947, University of Madras	D.C.
Mitchell, John Joseph	Va.	Mohler, Jeanne Claire	D.C.
Mitchell, Joseph McDowell	Md.	Mohler, John Robbins	D.C.
Mitchell, Lloyd Brooks	Okla.	Mohler, Wilmer Worthington	D.C.
M.S. 1948, Oklahoma Agricultural and Mechanical College		Mohns, Mona Jane	
Mitchell, Marguerite Amy	Va.	B.S. 1942, Wisconsin State Teachers College, La Crosse	N.Y.
A.B. 1949, The George Washington University		Mohr, Paul James	Va.
Mitchell, Margorie Crawford	Va.	Mohr, Rosamond Greenlee	La.
A.B. 1933, Montana State University	Ala.	Moise, Ridgely, Jr.	Va.
Mitchell, Mary Christine	D.C.	Molander, Jarl	Mo.
Mitchell, Mary Eddie	D.C.	Mollick, Jean	N.C.
Mitchell, Mary Eleanore	D.C.	Molloy, Davies Warfield	
Mitchell, Mary Louise	D.C.	B.S. 1949, Villanova College	Ill.
Mitchell, Mary Lynn	D.C.	Moloney, John Francis	
A.B. 1948, The George Washington University		B.S.S. 1949, Georgetown University	D.C.
Mitchell, Nan	D.C.	Molyneaux, John William	
Mitchell, Robert Cleo	D.C.	A.B. 1939, The George Washington University	D.C.
Mitchell, Robert Eugene	D.C.	Monaco, Anthony John	Ohio
Mitchell, Robert Warren	Pa.	Monaco, Dalio Hugo	Pa.
Mitoma, Edwin Yoshito	Md.	Monaghan, Anna Elizabeth	
B.S. in E.E. 1947, Case Institute of Technology		B.S. 1948, Pennsylvania State Teachers College, Bloomsburg	Va.
Mizell, Fenton Vivian	Md.	Monaghan, John Thomas	N.H.
Moale, Elsie Wooton	Md.	Monahan, Matthew Roy	D.C.
A.B. 1939, Goucher College	Pa.	Monasterski, Edward	Va.
Moan, Jeanne Corkhill		Monchlovich, Mike	
A.B. 1935, Seton Hill College		B.S. 1947, The George Washington University	Ill.
A.M. 1949, The George Washington University		Mondlock, Marguerite M.	Mich.
Modance, Walter Aaron	N.Y.	Mondschein, Earl Jay	India
B.S. 1938, College of the City of New York		Mongia, Jagjit Singh	
Modlin, Albert Jay	D.C.	A.B. 1938, Government College, Lahore, India	D.C.
B.S. 1948, The George Washington University		Monie, Don John	Pa.
Modlin, Philip Hodgins	N.C.	Monier, John Baptiste	
A.B. 1947, High Point College		B.S. 1941, University of Pittsburgh	N.J.
Moe, Albert Ferdinand	Calif.	Monisera, Frank Daniel	D.C.
B.S. 1928, University of California		Monk, Charles Albert	Ind.
Moe, Alfred Brox	Va.	Monk, Gordon Vance	Iowa
A.B. 1949, The George Washington University		Monlux, Andrew W.	
Moe, Donald Jacques	Minn.	D.V.M. 1942, M.S. 1947, Iowa State College of Agriculture and Mechanic Arts	Pa.
B.S. 1943, United States Naval Academy		Monn, John Israel	
Moe, Lucas Harlan, Jr.	Pa.	B.S. 1931, Pennsylvania State Teachers College, Shippensburg	Va.
Moe, Stanley Kermit	Calif.	Monroe, Charles Stephen	
Moebus, Charles J.	Ohio	B.S. 1939, Virginia Polytechnic Institute	Va.
Moehring, J. Truitt	D.C.	Monroe, Evelyn J.	
Moeller, Marian	N.C.	B.S. 1930, University of Virginia	Mich.
Moeller, Ruth	Mo.	Monroe, John Anthony	
Moerman, Constance L.	Va.	B.S. 1935, Ferris Institute	Va.
A.B. 1938, The George Washington University		Monroe, Mary Diedrich	Va.
Moffatt, Jean H.	D.C.	Monroe, Mildred Jeanette Searle	
A.B. 1922, Erskine College		A.B. 1929, A.M. 1931, The George Washington University	Ala.
A.M. 1931, Columbia University		Monroe, Samuel Ray, Jr.	
Moffatt, Samuel John	D.C.		



Monsees, Edna Kury	D.C.	Moore, Jack Martin	Md.
B.S. 1930, University of Missouri		A.B. 1949, The George Washington	
Monzheimer, Louis Bertram	N.Y.	University	
Monson, Margaret Joanne	Md.	Moore, James Benjamin	S.C.
Montague, Helen Bovard	Va.	B.S. in C.E. 1939, Clemson Agri-	
Montague, William Eugene	D.C.	cultural College	
Montalbano, Michael Salvatore	N.Y.	Moore, James Edward	D.C.
A.B. 1948, The George Washington		Moore, Jesse Lee	D.C.
University		Moore, Jesse Myatt	Ark.
Monte, Frank James	D.C.	Moore, John Rutledge	N.M.
Montecalvo, Sam	Ill.	Moore, Loë Randolph	La.
A.B. 1941, University of Illinois		Moore, Lusadel	Ga.
Monteith, Alice Jean	Va.	Moore, Mable E.	D.C.
Montgomery, Joe Moore	Ala.	Moore, Marion Pauline	Ariz.
Montgomery, Peyton	Md.	A.B. 1949, University of Arizona	
B.S. 1935, Davidson College		Moore, Mary Jane	D.C.
Montgomery, Rayner Augustine, Jr.	D.C.	Moore, Patricia Ann	D.C.
Montgomery, Richard Clemens	D.C.	Moore, Patricia Catherine	Va.
Montgomery, Robert Hayes	D.C.	Moore, Patricia Mary	Va.
Montunna, Stanley	D.C.	Moore, Richard Thomas	D.C.
B.S. 1942, United States Naval		Moore, S. Reid	D.C.
Academy		Moore, Samuel Varick	D.C.
Monyak, John George	Pa.	B.S. 1942, University of Maryland	
B.S. 1949, Geneva College		Moore, Shirley Throckmorton	D.C.
Moody, Dwight Lyman	Va.	Moore, Stella Davenport	Va.
B.S. 1935, United States Naval		Moore, Stewart Fawcett	W.Va.
Academy		A.B. 1943, Bethany College, W. Va.	
Moody, Harold Abram, Jr.	N.Y.	B.S. 1948, Carnegie Institute of	
Moody, Horace Ray	D.C.	Technology	
Moody, Martha Ada	N.C.	Moore, Thomas Carlisle, Jr.	Ga.
B.S. 1942, Western Carolina Teachers		B.S. 1936, Georgia Institute of	
College		Technology	
Moody, Nelle High	Va.	Moore, Thomas Wesley	D.C.
Moody, William Augustus	Tenn.	Moore, Virginia Worley	N.M.
Moomey, William Ray	Ill.	Moore, Waldo Hawthorne	Va.
A.B. 1949, James Millikin University		Moore, Ward John	Md.
Moon, Thomas Jefferson, Jr.	Ala.	Moore, Willard Edward	W.Va.
Mooney, James Elliott	Fla.	A.B. 1949, West Virginia University	
A.B. 1949, University of Florida		Moore, William Francis	D.C.
Mooney, Mark Wendel	Md.	Moorefield, Carlton Swain	N.C.
Mooney, Patricia Ann	Tex.	A.B. 1949, Lenoir-Rhyne College	
A.B. 1941, College of Mines and		Moorefield, Courtney Marshall	N.Y.
Metallurgy, El Paso		B.S. in M.E. 1949, University of	
A.M. 1944, East Texas State Teachers		Illinois	
College		Mooreheld, Herbert Hughes	Md.
Ph.D. 1946, Cornell University	Conn.	Mopper, Kehath Samuel	Ga.
Mooney, Robert James		Moraghan, John Edward	Va.
B.E. 1942, Yale University	Ga.	Morales, Betty Jane	Md.
Moore, Alvin, Jr.	Tenn.	Morales, Donald Chauncey	Md.
Moore, Arthur Daniel		Morales-Yordán, Jorge	D.C.
B.S. 1949, East Tennessee State		A.B. 1948, University of Puerto Rico	
College		Moran, Andrew John	Pa.
Moore, Betty Louise	D.C.	Moran, Charles Vincent	Va.
Moore, Boyd Guerry	D.C.	A.B. 1949, The George Washington	
Moore, Charles Clifton, Jr.	D.C.	University	
Moore, Charles Frew	Md.	Moran, Leila Padgett	Md.
Moore, Clifton Robert	D.C.	A.B. 1946, Hood College	
B.F.E. 1923, Springfield College		B.S. in L.S. 1947, Drexel Institute	
Moore, Donald Francis	Mass.	of Technology	
Moore, Donald Wheeler	Va.	Moran, Leon James	Conn.
Moore, Donnie McCoy, Jr.	Md.	LL.B. 1949, The George Washington	
Moore, Douglas Hamilton, Jr.	Va.	University	
Moore, Elizabeth Grace	N.M.	Moran, Leroy	Va.
A.B. 1947, University of New Mexico		A.B. 1949, Lynchburg College	
Moore, Elmer Lee	Md.	Moran, Peter Joseph	N.J.
Moore, Ethel Lee	Md.	Moran, Robert Emmet	Md.
Moore, Eugene Minton	Ala.	Moran, Terrance Lamar	Md.
Moore, Frank Donald	Idaho	Mordas, George	N.J.
Moore, Franklin Benjamin	Mich.	Morehouse, Lucille Vivian	N.Y.
Moore, Henrietta S.	Ind.	Moreland, Chester Martin	Pa.
Moore, Henry Wadsworth, Jr.	D.C.		
B.S. 1942, University of Maryland			



Moreland, Helen Lucile	Iowa	Morris, Owen Hughes, Jr.	Va.
B.S. 1940, Iowa State College of		Morris, Ralph Franklin	W.Va.
Agriculture and Mechanic Arts		Morris, Robert Hart	D.C.
A.B. 1948, The George Washington		Morris, Ronald Eugene	Pa.
University		Morris, Sara Roberta	D.C.
Moren, Clarence Gill	N.Y.	A.B. 1933, The George Washington	
Morgan, Alice Susan	D.C.	University	
B.S. 1938, University of Maryland		A.M. 1938, Columbia University	Mass.
A.M. 1946, The George Washington		Morris, Thomas Patrick	
University		Ph.B. 1941, Providence College	D.C.
Morgan, Antonia Louise	Canada	Morris, Una Rita	Va.
Morgan, Billie	Va.	Morrison, Alexander Henderson	
B.S. 1936, Virginia State Teachers		A.B. 1939, Virginia Military Institute	Md.
College, Farmville		Morrison, Carson Carmon	
Morgan, Cecil W.	Va.	A.B. 1928, Pacific Union College	
B.S. 1927, Springfield College		M.S. 1932, University of Southern	
Ed.M. 1942, Ph.D. 1944, University		California	Nebr.
of Pittsburgh		Morrison, Claude Oliver	
Morgan, David Richard	Maine	B.S. 1932, University of Nebraska	Va.
Morgan, Don Earle	Ky.	Morrison, Eva Jean	N.Y.
Morgan, Donald Ray	Pa.	Morrison, Howard Irwin	D.C.
Morgan, Earl James	Va.	Morrison, James Robert	Va.
Morgan, Edward Tull	S.C.	Morrison, Mary Margaret	Maine
Morgan, Emory Claude	Calif.	Morrison, Philip Hapworth	
B.S. 1948, University of Southern		B.S. 1949, University of New Hamp-	
California		shire	D.C.
Morgan, Glenn Franklin, Jr.	D.C.	Morrison, Ralph Robert	D.C.
Morgan, James Donald	Md.	Morrison, Robert Reid	Va.
A.B. 1949, University of Maryland		Morrison, Robert Turnbull, Jr.	
Morgan, John Edward	Maine	A.B. 1932, Ohio Wesleyan University	
Morgan, John Hamilton	D.C.	A.M. 1934, Ohio State University	Va.
Morgan, John William	W.Va.	Morrison, William Llewelyn	
Morgan, Robert Campbell	N.C.	B.S. 1939, United States Coast Guard	
Morgan, Robert Elonzo	Md.	Academy	Maine
Morgan, Robert Henry	Md.	Morrison, William Robert	D.C.
Morgan, Robert Stong	Tenn.	Morrissey, Raymond	Md.
Morgan, Walter Lee, Jr.	Ala.	Morrow, Christopher Mollen	Pa.
Morgan, William Mitchell	D.C.	Morrow, Mary Lou	D.C.
Morgenstein, Harvey Norman	Md.	Morse, Marjorie Lee	Pa.
B.S. 1949, University of Maryland		Morter, Norman Alvey	D.C.
Morgret, Charles Oscar	Md.	Mortimer, Doris Haignere	
Morgret, Clarence Abner	Md.	B.S. 1939, Ohio State University	Pa.
Moriarity, Sarah Catherine	W.Va.	Morton, Frank Reginald	
Moritz, Andrew Bruce	S.D.	A.B. 1938, Thiel College	
A.B. 1942, University of South Dakota		B.D. 1942, Lutheran Theological	
Morledge, Charles Calvin	D.C.	Seminary, Gettysburg	D.C.
Morley, Christina Bird	D.C.	Morton, George Richard	Md.
Morley, John Royal	N.J.	Mosby, June Clarice	Pa.
A.B. 1949, Marietta College		Moseley, Francis Wilson	Va.
Morley, Richard Gordon	Va.	Moseley, Theresa Brill	Va.
Morlock, Harry Kenneth	D.C.	Moser, Ben	Pa.
Mornone, Augustus James	Va.	Moser, Martin William	
Morong, Francis Goodwin	Va.	A.B., A.M. 1948, University of	
B.S. 1935, University of Maine		Pittsburgh	D.C.
Moroz, Walter Stanley	Md.	Moser, Ruth	Fla.
Morrell, Francis Arthur	N.Y.	Mosher, Annette M.	Va.
Morrell, Leo Gregory	Pa.	Moskey, Thomas Andrew	
B.S. 1947, Georgetown University		B.S. 1936, University of Maryland	D.C.
Morrell, Roger Merrit	Md.	Moskowitz, Margaret M.	D.C.
Morris, Brooks Henry	Ark.	Moskowitz, Milton Sam	D.C.
Morris, Clyde Linwood	Va.	Mosley, Laura Morefield	Pa.
Morris, Douglas Cockerille	Va.	Mosley, Richard Harry	Mass.
Morris, Florence	Minn.	Mosman, Kenneth Freeman	Mass.
Morris, Jack Curtis	Ill.	Moss, Robert Cramton	N.Y.
A.B. 1949, Columbia University		Moss, Sidney J.	
Morris, James Peter	Conn.	A.B. 1948, The George Washington	
A.B. 1949, The George Washington		University	N.C.
University		Mosteller, Bertha Alene	Md.
Morris, James Philip	N.C.	Motrow, Ralph Joseph	
Morris, John Michael	D.C.	A.B. 1933, Williams College	
Morris, Leon M.	D.C.	A.M. 1935, Brown University	Mich.
A.M. 1939, University of Kentucky		Mott, Howard	Va.
Morris, Lewis Dawson	Va.	Mott, Mary Louise Tully	
Morris, Marian Miles	Ky.		



Mott, Richard Henry, Jr. A.B. 1947, The George Washington University	D.C.	Mullinnix, Allen Prather B.S. 1919, United States Naval Academy	Ind.
Motyka, Elizabeth Lucille	Mass.	M.S. 1926, Yale University	Va.
Motz, Ruth Lucile B.S. 1938, Ohio State University	D.C.	Mullins, Jessie Edith A.B. 1949, The George Washington University	Ky.
Mout, John Charles	Mont.	Mullins, Walter Chesterfield	Tex.
Moul, George Edward, Jr. A.B. 1934, Pennsylvania State College	D.C.	Mullins, William Stanley B.J., A.B. 1948, University of Texas	D.C.
Moulthrop, Henry Kenneth	Va.	Mumford, Alura Anne	D.C.
Moulton, Arthur Bertram B.S. 1943, University of Maine	Va.	Munan, Louis Pat A.B. 1943, The George Washington University	D.C.
Moulton, Maxwell Coffin	Md.	Mund, Margaret Eileen	D.C.
Mountain, Robert Emmett	Minn.	Mundell, Anne	D.C.
Mountjoy, Raymond	D.C.	Mundy, John Price	Va.
Mouré, Roger James	Md.	Mundy, John Leo A.M. 1948, University of Virginia	Pa.
Mouré, Rupert Francis	D.C.	Munekiyo, Asa	D.C.
Mourning, Henry Lee	D.C.	Munger, Lorraine Junette A.B. 1948, The George Washington University	Va.
Mourning, Lucy Lee	D.C.	Munley, Eugene Joseph	Pa.
Mousley, Joseph Charles	Md.	Munn, John Irvin B.S. 1948, Pennsylvania State Teachers College, Indiana	Pa.
Movassoghi, Fereydoun	Iran	Munns, Constance Louise	Md.
Mowers, Robert Dean	Iowa	Munroe, Alfred A. A.B. 1946, Municipal University of Wichita	Kans.
Mowl, Dorothy Lucille	Pa.	Munroe, Marianne	Va.
Mowry, Morris Carl	Pa.	Munro, Catherine Chenoweth	Md.
Mowry, Boardman Shaw B.S. 1940, Purdue University	Ill.	Munro, Sanford Sterling	Wash.
Moy, Edwina	D.C.	Munson, Marlene Marie	Iowa
Moyer, Robert Daniel	Md.	Munson, Thomas Richard	Va.
Moyerman, Ruth Jean	N.J.	Munter, Emil, Jr.	D.C.
Moyers, Henry Horace	Va.	Munves, William A.B. 1932, College of the City of New York	Va.
Moylan, David John	D.C.	J.D. 1936, New York University	N.Y.
Mozingo, Frederick Strawn	D.C.	Murabito, Frank Joseph	Va.
Mozley, Ethel	Ga.	Murano, Raymond Patricio	Va.
Mucciarone, Anthony Thomas	Pa.	Murdock, Ben Joseph	D.C.
Muchnick, Abraham Hershel	D.C.	Murdock, Cinda Lee	D.C.
Meuhlause, William	D.C.	Murdock, Robert Barnard	D.C.
Mueller, Bernard Clarence	Pa.	Murnane, John Francis	D.C.
Mueller, Mary Ellen	Va.	Murphey, Elton Ira, Jr.	Tenn.
Mueller, Peter Klaus	D.C.	Murphey, Randolph Clay II	Va.
Muench, Peter H. B.S. 1949, University of Southern California	Calif.	Murphy, Barbara Fuller A.B. 1949, The George Washington University	D.C.
Muhonen, Oliver Adolph	Minn.	Murphy, Barbara Marie A.B. 1948, The George Washington University	D.C.
Muir, Donald Belden	D.C.	Murphy, Claire Mary	Md.
Muirhead, William, Jr.	Pa.	Murphy, Donald Leon	Ark.
Mukerjee, Naran Chandra B.E. 1942, Calcutta University, India	D.C.	Murphy, Eleanor Marguerite	D.C.
Mulderig, Viola	N.Y.	Murphy, Eugene Martin B.S. 1949, Georgetown University	Mass.
Muldoon, Charles P.	D.C.	Murphy, Frank Joseph	D.C.
Mulford, Randolph Mustian	D.C.	Murphy, Glenn William	D.C.
Mulhall, Francis Joseph, Jr.	N.J.	Murphy, Harriet McAndrew B.S. 1948, Wilson Teachers College	Pa.
Mulhearn, Rupert Albert	D.C.	Murphy, Harry Lee B.S. 1949, Grove City College	Tex.
Mulkey, Thomas Charles	R.I.	Murphy, James Palmer	D.C.
Mull, John Clifford	D.C.	Murphy, Joan Ann	D.C.
Mullarkey, James Patrick	N.C.	Murphy, John Ancona B.S. 1949, Georgetown University	Nev.
Mullen, Clarence Robert	Ill.	Murphy, John Jay	
Mullen, John Abercrombie	Ohio		
Mullen, Lyle Ray	Mass.		
Mullen, Patricia Anne	D.C.		
Muller, Eva Margrethe	D.C.		
Muller, Raymond Carl B.S. 1949, University of Maryland	Norway		
Mulligan, Barry Wayne	D.C.		
Mullin, Eugene Francis, Jr. A.B. 1945, Brown University	D.C.		
Mullin, Helen Marie	D.C.		
Mullineaux, O. Charles	Md.		
Mulling, Jack A.B. 1947, The George Washington University	Ga.		



Murphy, John Joseph, Jr.	D.C.	Myers, Richard Ira	Pa.
B.S. 1943, University of Maryland		Myers, Robert Arthur	D.C.
Murphy, Joseph Alexander	D.C.	B.S. 1933, College of William and Mary	N.J.
A.B. 1948, The George Washington University		Myers, Sara Marie	
Murphy, Joseph Lawrence	Va.	A.B. 1948, University of Southern California	D.C.
Murphy, Joseph Patrick	Va.	Myers, Saul Meredith	Pa.
A.B. 1949, The George Washington University		Myers, Thad Prentice	Va.
Murphy, Lawrence Marsielles	D.C.	Myers, Thomas Ellsworth	D.C.
Murphy, Margaret	Pa.	Myerson, Jacob Myer	
Murphy, Patricia Ann	D.C.	A.B. 1949, The George Washington University	D.C.
Murphy, Richard Ernest	Minn.	Myette, Thomas Waldo	Ind.
A.B. 1943, St. Lawrence University		Mynsberge, Maurice	Tex.
Murphy, Robert Bernard	D.C.	Myres, Charles Ernest	
Murphy, Robert P.	Wis.	A.B. 1942, Rice Institute	D.C.
A.B. 1948, Ripon College		Myriantopoulos, Ntinos Cleovourov	N.Y.
Murphy, Thomas Boland	Pa.	Myrick, Donald Marshall	Va.
Murphy, Thomas Harry	Ind.	Myrick, Elizabeth Land	Tex.
Murphy, Thomas Joseph	D.C.	Myrick, Joe H.	
B.S. 1946, Franklin and Marshall College			
Murphy, William Clark	Va.		
Murray, Ann Irene	Md.		
Murray, Charles Ambrose	Mass.	N	
Murray, Edward Patrick	D.C.	Nacht, Frank	D.C.
Murray, Helen Dorothy	Mass.	Nadeau, Frances N.	Tex.
A.B. 1944, University of Massachusetts		Nadel, Sidney	D.C.
Murray, Helen Holden	W.Va.	Naecker, Priscilla Margaret	Pa.
A.B. 1926, Marietta College		Naehel, Willis Earl	Md.
Murray, Herbert Henry	Md.	Naehle, Henry Emil	D.C.
B.M.E. 1948, The George Washington University		Nagle, John Jacob	N.Y.
Murray, James Andrew, Jr.	S.C.	Nagler, Norbert	Pa.
Murray, John Leo	D.C.	Nagy, Alex Paul	Mich.
Murray, Kathleen Yvonne	Md.	Nagy, Louis James	R.I.
Murray, Malcolm Holden	W.Va.	Nahan, Joseph Francis	Conn.
Murray, Richard Charles, Jr.	D.C.	Nahas, George Frederick	D.C.
Murrell, Evelyn Louise	D.C.	Nahm, Doris	
Murrin, Elizabeth Joan	Pa.	A.B. 1949, The George Washington University	D.C.
Murrin, Virginia Doubet	Pa.	Nahme, Leonard Lee	Va.
Murriah, Everett Clark	Ohio	Nadden, Eulaine	
A.B. 1947, Harvard University		B.S. 1942, University of Idaho	Okl.
A.B. 1949, Waynesburg College	Pa.	Nail, Edwin Starkey	D.C.
Muse, Claude Revere, Jr.	Va.	Naiman, Norma Lee	D.C.
A.B. 1949, The George Washington University		Nair, Roberta Young	Hawaii
Muse, Leonard Thomas	D.C.	Nakashima, Sumio	Md.
Musselman, Ashby Milton	D.C.	Nall, Berry Hudson, Jr.	D.C.
B.S. 1947, University of Maryland		Nall, James Ramon	Va.
Musselman, Homer Dewey	D.C.	Nalls, Barbara Gloria	Md.
Musser, Ella Bitner	D.C.	Nalls, John Willard, Jr.	N.Y.
B.S. 1923, University of Washington		Namismak, Stephen	Va.
Mutchler, Thomas Edward, Jr.	D.C.	Nance, Ophir Carinal Jr.	Oreg.
Muzzey, Susan Ann	D.C.	Naper, Robert Erwin	N.Y.
Myer, Lloyd Zuck	Pa.	Napolitano, Benjamin John	Va.
Myers, Adda Mae	Pa.	Naquin, Frances Davis	
B.S. in Ed. 1949, Pennsylvania State Teachers College, Bloomsburg		A.B. 1925, The George Washington University	Va.
Myers, Billie Ray	Md.	Naquin, Frances Lorraine	N.Y.
Myers, Dorothy Rose	Va.	Nargizian, Andrew Antranig	N.Y.
Myers, Eliza George	Va.	Nargizian, Edward Arsen	D.C.
A.B. 1929, College of William and Mary		Narrow, Wiley	
Myers, George Albert, Jr.	Md.	LL.B. 1943, The George Washington University	R.I.
Myers, George Ford	Md.	Nash, Ruth Crandon	Va.
Myers, George Robert	Pa.	Nash, Samuel Wellington	D.C.
Myers, Harold	Pa.	Nassimbene, Raymond	
Myers, Jacob Eugene	D.C.	B.S. 1931, University of Denver	N.Y.
Myers, John Dallas, Jr.	Va.	Nathan, Bernard	D.C.
Myers, Margaret Mary	Md.	Naughton, Joseph Patrick	Pa.
Myers, Merrill Thompson	D.C.	Naugle, Glenn Lamar	D.C.
Myers, Mildred Isabel	D.C.	Nauman, Myles Hull	



Navy, Muriel	N.Y.	Nelson, Robert George	D.C.
A.B. 1946, New York State Teachers College, Albany		Nelson, Sally True	Va.
A.M. 1949, Columbia University		Nelson, Theodore Warren	Va.
Nay, Harold Edgar	Md.	B.E.E. 1947, The George Washington University	
Nayda, George Thomas	N.J.	Nelson, Walter Burns	D.C.
Naylor, Esther Olson	Md.	Nelson, Warren James	D.C.
Naylor, Guy Rodgers, Jr.	Md.	B.S. 1948, University of Wisconsin	
Neach, Alphonse Alexander	Pa.	Nelson, William Halliday	W.Va.
Nealsey, John Francis, Jr.	Mass.	Nemes, Michael Stephen	N.Y.
A.B. 1949, The George Washington University		Nernberg, Ralph Amos	Fla.
Neal, Paul	D.C.	Nershi, Michael Thomas	N.J.
Neal, Paul Frederick	D.C.	A.B. 1949, The George Washington University	
Neal, Ralph Bennett	Calif.	Nesbit, Mary Katherine	D.C.
Neal, Richard Glenn	D.C.	A.B. 1933, The George Washington University	
Neal, William Alfred	D.C.	Nesbitt, Betty Rae	Va.
Neale, Robert James	Calif.	Nesline, John Francis, Jr.	Va.
Nealon, James Dinneen	Va.	Ness, Juell R.	S.D.
Nearman, Jane Carol	D.C.	A.B. 1949, The George Washington University	
Nearman, Richard Edward	D.C.	Ness, Rudolph Walter	Ill.
Neary, John Matthew	Pa.	Nestor, Rosalie Eleanor	D.C.
Ne, William John	Va.	Nethercott, Mary Elizabeth	N.Y.
B.S. 1938, Marquette University		Nethercut, Robert Eugene	Ohio
Needham, Gerard Joseph	Pa.	A.B. 1949, College of Wooster	
Neeley, Arthur Call	Conn.	Nethken, Mary Helen	D.C.
B.S. 1948, Columbia University		A.B. 1930, A.M. 1932, West Virginia University	
Neely, James Curtis	Va.	Netterville, Victor Samuel	Ind.
Neenan, Elmer Bruno	Minn.	A.B. 1947, Indiana University	
Neff, Jacqueline Henriette	D.C.	Neuberger, Florence G. Perlmutter	Md.
A.B. 1948, The George Washington University		A.B. 1949, Hunter College	
Neff, John Lawrence	Va.	Neudorfer, Lawrence Sterling	N.Y.
B.S. 1941, United States Naval Academy		Neuenschwander, June Dare	W.Va.
Neff, June Elaine	Pa.	Neuhaus, Charles William	D.C.
A.B. 1945, College of William and Mary		Neuhaus, Joan Lawrence	D.C.
Negrine, Elie	N.Y.	Neumann, Richard K.	D.C.
Negulescu, Paul	D.C.	Neusch, Herman William	Tex.
Neidorf, Sol	D.C.	Neva, Aileen Ramona	D.C.
Neighbors, Walter Draper	Va.	Neva, Edward	Tex.
Neil, Charles Verne	Minn.	Nevels, Elizabeth Marions	D.C.
Neil, Clyde G.	Pa.	B.S. 1942, Columbia University	
Neill, James McDow	N.M.	Neviaser, Albert Edward	Vt.
A.B. 1949, The George Washington University		Nevils, Florence Irene	N.Y.
Nelsen, Arden Robert	Nebr.	Nevin, John Irving	Ga.
A.B. 1942, Nebraska Central College		New, Gregory Ryan	Md.
Nelson, Betty	N.Y.	Newcomb, Laurence C.	
Nelson, Dee Ramsey	Minn.	B.S. 1938, New York State Teachers College, Buffalo	
Nelson, Donald Self	D.C.	A.M. 1947, The George Washington University	
Nelson, Dorothy Emily	D.C.	Newdick, William Adams	Maine
Nelson, Elsie T.	Conn.	A.B. 1949, University of Maine	
A.B. 1933, Connecticut College		Newell, Lewis	Md.
Nelson, Gordon Bruce	Tex.	Newey, John Percy	D.C.
Nelson, Hannah-Greta Elisabeth	D.C.	Newhard, Howard Daniel, Jr.	N.J.
Nelson, James Olmstead	Fla.	Newhouse, Leroy Clark	Md.
Nelson, Marjorie Bonnie	D.C.	Newkirk, Elwin Earl	Calif.
Nelson, Mary Jane	D.C.	A.B. 1948, University of Southern California	
A.B. 1948, The George Washington University		Newkirk, George Francis	Ill.
Nelson, Merle Ellsworth	D.C.	A.B. 1946, A.M. 1948, The George Washington University	
B.B.A. 1949, University of Minnesota		Newkirk, LeRoy	Va.
Nelson, Morton S.	N.Y.	Newkirk, Roy Francis	N.J.
Nelson, Paul Edward	Va.	Newland, Howard Theodore	Va.
B.S. 1948, Georgetown University		Newland, Mary Ellen	Iowa
Nelson, Raymond Arthur	N.Y.	Newland, Paul	Ill.
A.B. 1943, Tusculum College		A.B. 1938, The George Washington University	
Nelson, Raymond Martin	D.C.	Newland, Paul Arthur	Ind.
Nelson, Robert Eugene	Md.		
A.B. 1941, Cornell College			
A.M. 1942, Columbia University			



Newlin, Joseph Homan	Pa.	Niemiec, Francis John	N.J.
A.B. 1942, LL.B. 1948, The George Washington University		A.B. 1944, Seton Hall College	
Newman, Basha	D.C.	B.S. 1948, Georgetown University	Wis.
Newman, Jack	D.C.	Nigh, Evelyn Marie	Va.
B.S. 1939, College of the City of New York		Nikoloric, Suzanne Mills	D.C.
Newman, Jack	D.C.	Niles, Jack Stone	R.I.
Newman, Mary Ann	Va.	Niles, Philip Draper	N.Y.
Newman, Ruth Gallert	D.C.	Nimeroff, Bertram	
A.B. 1937, Rutgers University		B.E.E. 1942, College of the City of New York	Pa.
Newmyer, Armand	D.C.	Nimeroff, Isadore	
Newquist, John Wallace	S.D.	B.S. 1948, The George Washington University	Va.
B.S. in Ed. 1940, Northern State Teachers College		Nimmo, Murray Franklin Bliss	D.C.
Newquist, Noel Clayton	Kans.	Ninnom, Barbara Joy	W.Va.
A.B. 1949, The George Washington University		Niner, Rosemary	Va.
Newsome, George Marvin	Va.	Nisewander, Elton Lee	Hawaii
LL.B. 1949, The George Washington University		Nishi, James Akio	D.C.
Newton, Alma Louise	Md.	Nishimura, George Kazuo	D.C.
A.B. 1945, Wake Forest College		Niskanson, Sue Bowie	D.C.
Newton, Donald Alan	Vt.	Nisson, George Wendell	N.Y.
Newton, Frances Elizabeth	N.C.	Nix, Wayne Dale	Pa.
Newton, Gordon Quincy	D.C.	Nizloek, Josephine J.	Pa.
Newton, James Robert	N.C.	Nobel, John Phelps	D.C.
Newton, Katharine R.	Va.	Nobel, Louis N.	Pa.
A.B. 1919, Thiel College		Noble, Sheldon Allen	D.C.
Newton, Louis Knox	N.C.	Noble, William Over	Va.
Newton, Walter Lloyd	Md.	Noell, William Cedric	
B.S. 1942, A.M. 1948, The George Washington University		B.S. 1942, Virginia Military Institute	D.C.
Ney, Milton Rosenfeld	D.C.	Nolan, James Walter Gerard	Mo.
Neyman, Elizabeth Sutherland	Calif.	B.S. 1949, Georgetown University	N.J.
Nezin, Etta Reva	D.C.	Nolan, Joseph Deqlan	N.Y.
Ng, Louis Hency	China	A.B. 1949, University of Missouri	D.C.
Nicalo, Ruth Elizabeth	Pa.	Nolan, Paul Joseph	Ga.
Nicholas, William	Ill.	B.S. 1949, Seton Hall College	D.C.
Nichols, John Oliver	Mich.	Nolan, Robert Marston	Pa.
Nichols, Lee	D.C.	Nolan, Sally Marie	D.C.
Nichols, Lloyd Barden	D.C.	Noland, Emmitt E., Jr.	Ga.
Nichols, Louis Nicholas	D.C.	A.B. 1949, University of Georgia	D.C.
Nichols, Merrill Howard	D.C.	Nolan, Thelma Marie	Pa.
Nichols, Mildred Elizabeth	Iowa	Noll, Carl Thomas	D.C.
Nichols, Peggy Joan	D.C.	Nolte, Ann Elizabeth	D.C.
Nichols, Robert Edmund	D.C.	Nolte, Carl Robert, Jr.	D.C.
Nichols, Ronald Alvin	N.M.	A.B. 1948, College of William and Mary	Tex.
Nichols, Warren James	Md.	Nolte, Deborah Marian	D.C.
A.B. 1949, The George Washington University		Nolte, William Robert	
Nichols, William Ashey	S.C.	B.S. 1943, University of Illinois	Pa.
Nichols, William DeWayne	Md.	Nonamaker, Charles Henry	Va.
A.B. 1947, Grinnell College		Noonan, Carol Barbara	N.Y.
Nicholson, Richard Lee	Va.	Noonan, Edward James	D.C.
Nickerson, George Willis	Okla.	Noonan, John Thomas	Calif.
Nicodemus, Patricia Ann	W.Va.	Noonan, Virginia Maury	France
Nicolaisen, Gordon Albert	D.C.	Noone, Anthony	D.C.
Nicola, Vincenzo Antonio	N.Y.	Norcross, Elizabeth	N.C.
Nicolopoulos, Diana Georgia	D.C.	Nordan, Thomas Bernard	Mass.
Niden, David	D.C.	Nordheim, Edna Fay	N.Y.
B.S. in Ed. 1938, Pennsylvania State Teachers College, Kutztown		Nordholm, Eric Gregg	Minn.
Niebel, Gayle Elizabeth	Va.	Nordness, Gladys Lillian	Iowa
B.S. 1937, Lebanon Valley College		Nordquist, Dean Anthony	D.C.
Niederstrasser, Robert Edward	Va.	A.B. 1949, State University of Iowa	
Niefeld, Herbert	D.C.	Noren, Morris Keith	D.C.
Nielsen, Harry Otto	D.C.	A.B. 1948, University of Oregon	D.C.
A.B. 1944, American University		Norfleet, Elaine Hobart	N.Y.
Nielsen, Jean Kelly	Va.	Norling, Sonja Eva	Md.
B.S. 1939, A.M. 1943, The George Washington University		Norman, Daniel Abraham	
Nielsen, Jessie Patricia	N.Y.	Norman, George	W.Va.
Niemi, Viola Eleanor	Mich.	A.B. 1947, Western Maryland College	Va.
		Norman, Joan H. K.	
		Norman, John T.	D.C.
		B.S. 1940, Ohio State University	Va.
		Norman, Richard Arthur	
		Norman, William Bruce	



Normandeau, Keith Joseph	Minn.	Nuspliger, Helen Marie	N.Y.
Norment, Nancy Richards	D.C.	B.S. 1947, Notre Dame College	N.Y.
Norington, Frances Taylor	Md.	Nussbaum, George Leight	D.C.
Norris, George Todd	Va.	Nuth, Eleonore Julia	D.C.
B.S. in Ed. 1934, Bowling Green State University		Nutman, Norma Stein	R.I.
Norris, Joseph Kieffer	D.C.	Nutter, George William, Jr.	
Norris, Lawrence Goeffrey	Ill.	A.B. 1947, Yale University	Kans.
Norris, Willa		Nuttman, Harold Franklin	N.Y.
B.S. 1947, University of Illinois		Nyce, James Carroll	Md.
B.S. 1934, University of Nebraska	Nebr.	Nyce, Mary Brodhead	Va.
A.M. 1943, Columbia University		Nygard, Arthur H.	
North, Richard Parsons	N.Y.	B.E. 1935, Wisconsin State Teachers College, Stevens Point	
North, Romona Ruth	D.C.	A.M. 1939, University of Chicago	
A.B. 1948, Catholic University of America		Nyhaugen, Donald Richard	D.C.
North, Stanley Underwood	N.J.	B.S. 1944, University of California	
A.B. 1942, Colgate University			
Northam, Wescott Brownlee	Va.		
Northover, Edward Ralph	D.C.		
Northrup, Barbara Winfred	N.Y.		
A.B. 1937, Elmira College		Oakes, Edmund Ignatius	D.C.
Northrup, Graham Theodore		Oakes, Lynwood Taylor	N.C.
Norton, Elizabeth Rosemary	D.C.	Oakes, Walter Foster, Jr.	Va.
Norton, Hugh Stanton	Md.	Oakley, George D.	Hawaii
A.B. 1947, A.M. 1948, The George Washington University	Nev.	A.B. 1948, University of Hawaii	
Norton, Maurice Edwin, Jr.	D.C.	Obal, Paul	Va.
Norton, Miriam		Ober, Kenneth Harlan	Ark.
Norvell, Jeanne Gaddia	Mass.	Oberholzer, John William	Ind.
Norwell, Robert Joseph	Wis.	A.B. 1949, Earlham College	
B.S. 1947, University of Wisconsin	Wis.	Obermier, Edith Theresa	N.Y.
Norwinski, Eugene E.		Obermier, John Nicholas	N.Y.
Norwood, Herman, Jr.	N.Y.	Oblazney, Andrew Anthony	D.C.
Norwood, Marian Bettie	D.C.	O'Boyle, Joan Agnes	N.Y.
A.B. 1947, Madison College, Va.	Va.	O'Brian, Edward Day	Iowa
Nothstein, Charles Lewis		B.S. 1947, Iowa State University of Agriculture and Mechanic Arts	
Nott, Joseph George	Okla.	O'Brien, Evelyn Kuntz	Iowa
Nottingham, Wilbur Ivan	Va.	O'Brian, Paul William, Jr.	D.C.
Notz, William Alan	D.C.	A.B. 1948, University of North Carolina	
B.S. 1943, Harvard University	D.C.	O'Brien, Anthony Aloysius	D.C.
Novak, Frederick Michael	N.Y.	O'Brien, Barbara Ann	D.C.
A.B. 1949, Shepherd College		A.B. 1948, University of Pennsylvania	
Novakovich, Dan	Pa.	O'Brien, Francis James, Jr.	Conn.
Novakovich, Nada	Nev.	O'Brien, James Dennis	Iowa
Nover, Naomi Goll	D.C.	O'Brien, John Andrew	D.C.
B.S. in Ed. 1934, New York State Teachers College, Buffalo		O'Brien, Joseph Gerald	D.C.
Novick, Irving	D.C.	O'Brien, Margaret Marion	Md.
Novikov, Yuzi Vasiljevich	D.C.	O'Brien, Marilyn Patricia	Mass.
Novy, James Samuel	Va.	O'Brien, Robert John	N.Y.
Nowak, Edward V.	D.C.	O'Brien, Tatiana	D.C.
Nowak, Francis Stanley	Va.	A.B. 1946, The George Washington University	
Nowak, Leopoldina Antonie	Ill.	O'Brien, William John	Mass.
A.B. 1947, The George Washington University		B.S. 1942, Tufts College	
Nowicki, Alfred Theodore	Pa.	Ochipinti, Samuel Joseph	N.J.
Nowlin, Joe Franklin	Ark.	O'Connell, Charles Carroll	Va.
LL.B. 1949, University of Arkansas		B.S. 1948, Georgetown University	
Nubbe, Virgil George	Minn.	O'Connell, Edward, Jr.	Ala.
A.B. 1949, The George Washington University		A.B. 1940, University of Michigan	
Nuhn, John Alfred		O'Connell, John Joseph	Va.
A.B. 1947, The George Washington University	Md.	O'Connell, Joseph Michael	D.C.
Nuhn, Richard Louis		O'Connell, Thomas Francis	Conn.
Null, Phyllis Viola	Md.	O'Connor, Adele Rac	Va.
Nunn, Frances Louise	Va.	O'Connor, Charles Frederick	
A.B. 1948, Vassar College	D.C.	A.B. 1948, The George Washington University	
Nurco, David N.	D.C.	M.B.A. 1949, University of Pennsylvania	
Nusbaum, Bertram Spagat, Jr.	N.Y.	O'Connor, Charles William	D.C.
B.S. 1948, University of Virginia	D.C.	O'Connor, Denis Patrick	Va.
Nusbaum, Jerome Lee	D.C.	O'Connor, Edward Francis	N.Y.
		O'Connor, James Joseph	Md.



O'Connor, Joseph Michael	D.C.	Oishi, Kazumae Ichuiji	Calif.
O'Connor, Leo Joseph Keven	D.C.	Oishi, Masaichi	Hawaii
O'Connor, Richard Leo	Calif.	B.S. 1949, The George Washington University	
O'Connor, James Atlee	Va.		
Oczytko, John Stanley	Ill.	O'Keef, John Edward	Ill.
Oda, Robert Yasuo	Hawaii	O'Keefe, George Aloysius	Mass.
Oddsson, Odie Wildur	Va.	O'Keefe, James Edmund	D.C.
Oddstad, Elma Dagmar	Calif.	O'Keefe, John Joseph	D.C.
O'Dea, Lawrence Aloysius	Md.	A.B. 1948, University of Southern California	
O'Dea, Thomas Emmett	D.C.		
O'Dell, Frank Eugene	Pa.	O'Keefe, Mary Frances	Pa.
O'Dell, Helen	W.Va.	Okopinski, Charles Paul	Pa.
Odineal, Mary Louise	D.C.	Olafson, Nancy Kay	D.C.
O'Donnell, Anne Hedwig	D.C.	Olds, John Daniel	D.C.
B.S. 1947, Wilson Teachers College		O'Leary, John Francis	Nev.
O'Donnell, Catherine Marie	Pa.	O'Leary, Rawlin Eugene	Utah
O'Donnell, Francis Joseph	N.J.	Oleinik, John Richard	Md.
O'Donnell, Horace Paul	D.C.	Oleingski, Edward Joseph	Pa.
O'Donnell, John Grattan	D.C.	Olenik, Joseph Eugene	D.C.
O'Donnell, Joseph Michael	Va.	Olesen, Donald Giddings	
O'Donnell, Vincent Leo	Pa.	A.B. 1943, Swarthmore College	Pa.
O'Donoghue, Grace Mary	D.C.	Olexa, Elmer Emery	Md.
B.S. 1948, Wilson Teachers College		Olexy, Peter Thomas	
O'Donoghue, William Henry	D.C.	B.S. 1939, Pennsylvania State College	N.J.
B.S. 1950, Wilson Teachers College		Oliff, Edward George	D.C.
Odza, Hugh Malcolm	Pa.	Olin, Wilber C.	Va.
A.B. 1947, Pennsylvania State College		Olinger, James Milumn, Jr.	
Oehlschlaeger, Virginia Louise	Vt.	A.B. 1949, Emory and Henry College	Va.
Oerlein, Frances Adele	D.C.	Oliver, Carlyne Mae	D.C.
Ofelt, George Richard	Va.	Oliver, Abbie Hanahan	D.C.
B.S. in E.E. 1927, University of Minnesota		Oliver, Emery Eugene, Jr.	Va.
Offenbacher, Hurley Francis	D.C.	Oliver, Gertrude Chesley	D.C.
Offenbacher, Thomas Ralph, Jr.	D.C.	Oliver, Lloyd Gilbert	Oreg.
Offutt, Eleanor Rebecca	D.C.	Oliver, Phyllis Irene	Va.
O'Flaherty, Barbara Jean	Va.	Oliver, Richard Lewis	Va.
O'Flaherty, Daniel Fairfax	Va.	Oliver, Wallace Bryan	Va.
O'Friel, Edward Waters	Pa.	Ollendorf, Donald	Va.
Oftedal, Richard Halland	D.C.	Ollice, John Hollowell	D.C.
Oftedal, Sverre John	D.C.	Olmert, Robert Francis	N.Y.
A.B. 1942, Occidental College		Olmsted, Normand Henry	D.C.
O'Gara, Norma Alice	Va.	Olmsted, George Leavitt	Va.
O'Gara, Roger William	Mass.	Olmsted, Lester Emlen	D.C.
A.B. 1948, The George Washington University		Olmsvsky, Steve Anthony	Utah
Ogburn, Mary Camelia	Va.	Olsen, Benjamin Cowley	D.C.
A.B. 1945, Sarah Lawrence College		Olsen, George Capewell	D.C.
Ogburn, Walter Shore, Jr.	Md.	Olshaker, Gertrude Edith	
Ogle, James Van	Va.	B.S. 1944, Wilson Teachers College	D.C.
Ogle, John Newman	Ind.	Olshaker, Irving Herman	D.C.
B.S. 1933, United States Naval Academy		Olshaker, Thelma A.	
Oglesby, Herbert Wills	Tenn.	B.S. 1947, Wilson Teachers College	N.Y.
Oglesby, Nicholas Ewing, Jr.	N.Y.	Olshin, John Seymour	Va.
B.S. in Ch. Eng. 1943, M.S. in Ch. Eng. 1947, Rensselaer Polytechnic Institute		Olson, Charles Doswell	N.D.
Ogletree, James Maurice	Ga.	Olson, Darwin Leander	
Ogrady, John Patrick	D.C.	B.S. 1941, North Dakota Agricultural College	D.C.
Ogren, Ruth Madeline	N.C.	Olson, Richard Lionel	
O'Halloran, Anne Adelia	Kans.	A.B. 1949, The George Washington University	
O'Halloran, James Stewart	Va.	Olson, Robert Glenn	Iowa
O'Hara, Boyd Clair	Pa.	Olsson, Charlene Elizabeth	Md.
O'Hara, Edward Michael	Minn.	Olzowski, George John	N.Y.
O'Hara, Joseph Patrick	Minn.	Olund, Betty Ann	Minn.
A.B. 1948, The George Washington University		O'Malley, Daniel Damian	Mass.
O'Hazza, Francis Edward	Pa.	O'Meara, William Raymond	D.C.
A.B. 1949, Pennsylvania State College		Omohundro, Mary Lee	D.C.
Ohl, Robert Franklin	Va.	O'Neal, James David	Md.
Ohliger, Dorothy Louise	D.C.	O'Neal, James Ormston	Minn.
Ohman, Thor Axel	Va.	O'Neil, John Dennis	N.Y.
Oilschlager, Gerald Albert	D.C.	O'Neil, Phyllis Patricia	Mass.
		O'Neil, Ruth	Mont.
		O'Neill, Edward Joseph	Pa.
		B.S. 1935, Villanova College	
		O'Neill, Peter James, Jr.	D.C.



O'Neill, Robert Daniel	D.C.	Osso, Anna Dolores	Pa.
Ong, Harry Alfred	Md.	Ostatnik, Stephen Frederick	N.J.
Onion, Janice Dunagan	Va.	A.B. 1949, Wittenberg College	
Onofrio, Pasquale Joseph	D.C.	Osten, Donald Walter	D.C.
Onstine, Burton Warner	Wash.	Osthoff, Hazel Jean	Kans.
Onufrak, John Joseph	Pa.	Ostrich, Ralph	D.C.
Oparowski, Walter Emil	Mass.	Ostrove, Bertram Ira	D.C.
Opp, William Russell	Okla.	A.B. 1949, The George Washington University	
Oppenheim, Edward Elliot	Va.	O'Sullivan, John Maurice	Mass.
A.B. 1941, University of Maine		Oswald, Elizabeth Janet	Va.
LL.B. 1949, Georgetown University	D.C.	B.S. 1937, University of Maryland	
Oppenheimer, Celia	D.C.	M.S. 1947, The George Washington University	
Oppert, Donald Eugene	Pa.	Oswald, Jean Louise	D.C.
Oram, Melvin		A.B. 1948, The George Washington University	
B.S. 1949, University of Scranton	D.C.	Otero, Carlos Enrique	D.C.
Ord, James Garesché	D.C.	Otero, Luis Raul	D.C.
O'Regan, William Vincent, Jr.	D.C.	O'Toole, Martin Stephen	Pa.
O'Reilly, Jacqueline Marie	D.C.	O'Toole, Stephen James	Va.
O'Reilly, Kathryn Louise	Conn.	B.S. 1940, Fordham University	
Orem, David Simpson	Md.	O'Toole, Ursula Elizabeth	Mich.
A.B. 1949, Oberlin College		Ott, Iva Murriel	D.C.
Orenden, Lucille Jane	D.C.	Ott, Jesse H.	Md.
Orenstein, Herbert	N.Y.	Ott, Katherine A.	Va.
Orenstein, Marilyn Claire	N.Y.	B.S. 1934, Western Reserve University	
Orleans, Beatrice S.	N.Y.	Otte, George Robert	Md.
A.B. 1939, Hunter College		Ottenstein, Victor H.	D.C.
M.S. 1941, Columbia University	D.C.	B.S. 1948, University of Pennsylvania	
Orleans, Joan Lorelei	D.C.	Otterman, Harvey Boyd	Vt.
Orlin, Hyman		A.B. 1949, The George Washington University	
B.B.A. 1942, College of the City of New York		Otti, Charles Leo	Calif.
A.B. 1948, The George Washington University	D.C.	Otto, Frederick Franklin	Md.
Orloff, Milton	Pa.	A.B. 1948, Shepherd College	
Orlove, Harold	N.J.	Orto, Ingolf Helgi Elfried	Md.
Orlovsky, Leo	D.C.	A.B. 1941, University of Cincinnati	
Ormond, William Berkeley	Va.	Overcash, Frances Stewart	D.C.
Orndorff, Maud Vernon		Overman, Horace Wooten	Va.
B.S. in Ed. 1930, University of Virginia		Ovrom, Allan Alfred	Wis.
Oros, Susan	Md.	B.S. 1932, United States Naval Academy	
Orosch, John Jay	N.Y.	Owen, George Morgan	D.C.
A.B. 1949, Brooklyn College		Owen, Greta Jane	Va.
Ort, Donald Tilford	Ariz.	Owen, Percy, Jr.	Mich.
A.B. 1948, University of Arizona		A.B. 1928, Princeton University	
Ort, Gus Wayne	D.C.	Owen, Richard Roberts	Ind.
A.B. 1929, Mississippi College		B.S. 1949, The George Washington University	
Ort, William Baxter	Va.	Owen, William Craft	Va.
Ortison, Virginia Davenport	Wash.	Owens, Clarence Julian	Md.
A.B. 1938, Whitman College		Owens, Helen Boyle	Va.
Ortison, William Foster	D.C.	B.S. 1940, Pennsylvania State Teachers College, Bloomsburg	
Orser, Janet McBryde	Calif.	Owens, Jack	W.Va.
Ortiz-Irizarry, Francisco G.	D.C.	Owens, John Patrick	D.C.
Ortolani, Frank Richard	Pa.	A.B. 1949, American University	
B.S. 1944, B.S. in Ch.E. 1948, Pennsylvania State College		Owens, Marcus Orlando	Tex.
Osann, Robert	Va.	Owens, Muriel Bernice	Wash.
B.Ch.E. 1943, Rensselaer Polytechnic Institute		Owens, Wilbur Leroy	D.C.
Osborn, Austin Godfrey	N.J.	Owings, Ruth	S.C.
B.S. 1950, University of Notre Dame		B.Mus. 1928, Furman University	
Osborn, Ilah Traver	Va.	Oxendine, Heaverd Dobber	N.C.
B.S. 1929, Oregon State College		Oxford, Jack	Pa.
Osborn, Robert Ambrose, Jr.	Va.	Oxholm, A. W.	D.C.
Osborne, James William	Ala.	A.B. 1949, The George Washington University	
Osborne, Joseph C.	D.C.	Oyama, Jiro	D.C.
Oseth, John Marcus	Kans.	B.S. 1949, Northwestern University	
B.S. 1936, United States Naval Academy		Oyster, David Fairfax	Va.
Osheroff, Milton	N.Y.	Oza, Manyukumar Jayantilal	India
B.S. 1939, College of the City of New York		A.M. 1948, Columbia University	
Osmon, Emily Harford	Fla.	Ozburn, Ernest Eugene	Ga.
Osmon, Richard Barr	Fla.		



P			
Pace, Daniel Anthony	N.Y.	Palmes, Lowell Richard	
Pace, Moody Anderson	D.C.	LL.B. 1949, The George Washington	
Pace, Stephen, Jr.	Ga.	University	N.Y.
B.S. 1945, United States Military		Palmieri, Alfred Frederick	India
Academy		Palta, Hardev Singh	Conn.
Pacheco, Ricardo	Colombia	A.B. 1937, University of Punjab	
S.J.D. 1944, Dr. of Econ. Science 1945,		Palumbo, Pasquale	
University of Javeriana, Colombia		M.E. 1944, Tufts College	
Packard, Daniel Abbott	D.C.	LL.B. 1949, Georgetown University	Mass.
A.B. 1949, Alabama State Teachers		Panagakos, Charles Michael	D.C.
College, Jacksonville		Panagos, Peter Anthony	D.C.
Packard, Ralph John	Va.	Panasewich, Walter	
Packel, Claire Marion	D.C.	Pancoast, Edwin Caleb	
Packer, Ellis Reed	D.C.	A.B. 1949, Maryville College	D.C.
Pacl, Iris Mildred Bishop	D.C.	Pancoast, Eunice Billings	Mass.
Pacl, Thomas Rudolf, Jr.	D.C.	Pandiscio, Nicholas Anthony	
Padberg, Jerome Frederick	Mo.	B.S. in Ch. Eng., 1947, Northeastern	
Padbury, Harry Rines	Maine	University	N.Y.
Padgett, Glenn Ernest	Fla.	Panettieri, Robert	Hawaii
A.B. 1949, Duke University		Pang, Hattie Cloy Hin	D.C.
Padilla, George Mario	D.C.	Pang, Margaret Nyuk Fung	D.C.
Paran, Katharine	D.C.	Pangborn, Eleanor Frances	
B.S. 1938, Wilson Teachers College		A.B. 1937, Butler University	Va.
Pagano, Anthony Roland	N.Y.	Panizza, Louis Robert	D.C.
Page, Aileen Coolidge	Md.	Pannill, William Eliason	D.C.
Page, Helen Bell	D.C.	Panor, Marie	N.Y.
A.B. 1927, LL.B. 1948, The George		Pantelias, John	N.Y.
Washington University		Pantol, Clare Winifred	Siam
Page, Michael William	Pa.	Panyarjun, Prasat	Egypt
A.B. 1949, Yale University		Papamichael, Michael Damianos	Va.
Page, Ryon Alender	Va.	Papay, Agnes Foley	Calif.
A.B. 1938, Wofford College		Papayianis, Behy May	Conn.
Pagter, Elizabeth Eugenia	D.C.	Papazoglou, Mary	N.Y.
A.B. 1945, The George Washington		Pape, Robert Bruce	W.Va.
University		Pappas, Angeline J.	
Paikowsky, Herman Mayer	Vt.	A.B. 1947, Salem College, W. Va.	W.Va.
A.B. 1949, University of Vermont		Pappas, James John	Va.
Pailas, Themis Constantine	Mo.	Pappas, James Sophocles	Tex.
B.S. in Ind. Eng. 1948, Washington		Pappas, Leo Basil	N.Y.
University		A.B. 1943, High Point College	D.C.
Paine, William Howard	Calif.	Pappas, Stavros Steve	Md.
Painter, Merion Elizabeth Moorhead	Va.	Papure, Bernard	D.C.
A.B. 1947, Florida State University		Paradise, Noel Edwin	
Painter, Parker	Va.	A.B. 1948, University of Maryland	D.C.
B.S. in E.E. 1940, Massachusetts		Pardoe, Prescott Harmon	Pa.
Institute of Technology		Parelman, Samuel Theodore	Ill.
Paisley, Yvonne Carole	D.C.	Parrellis, Paula Alexandra	Tex.
Pakis, Gloria Alexander	D.C.	Ph.B. 1948, University of Chicago	
Palacios, Jose Antonio	Guatemala	Parham, Robert Russell	Md.
Palau, Manuel	Puerto Rico	B.B.A. 1949, University of Texas	
Palczewski, Henry Walter	N.J.	Park, Barbara Kay	D.C.
Palczewski, Stanley Francis	D.C.	A.B. 1950, Columbia University	D.C.
Paleologos, Peter Harry	Md.	Parker, Cecilia McCallum	
Pallansch, Elizabeth Ann	D.C.	Parker, Charles Hanke	
Pallansch, Margaret Mary	D.C.	B.S. 1942, Worcester Polytechnic	Tex.
Palmasani, Daniel Robert	D.C.	Institute	D.C.
Palmer, Arthur Andrew	Va.	Parker, David Eric, Jr.	Va.
B.S. 1948, University of Maryland		Parker, Emily Davis	
Palmer, James Albert	Wash.	Parker, George Alton	
Palmer, James Marion	La.	LL.B. 1939, The George Washington	D.C.
B.S. 1938, United States Naval		University	Md.
Academy		Parker, Harold Curtis	Va.
Palmer, John Gilbert	Md.	Parker, Harry Hughes	N.C.
Palmer, Richard Roy	W.Va.	Parker, James Brandon	D.C.
Palmer, Robert Edward	Calif.	Parker, James Coy	Miss.
Palmer, Thomas Alfred	Va.	Parker, James Franklin	
Palmer, William Colton	Md.	Parker, James Frederick	
A.B. 1948, The George Washington		B.S. in A.E. 1946, M.S. in A.E. 1946,	Pa.
University		Georgia Institute of Technology	D.C.
Palmes, Douglas Edward	Va.	Parker, James Lewis	D.C.
		Parker, Jane Montgomery	D.C.
		Parker, Jane Timmons	D.C.
		Parker, Janice Carolyn	D.C.
		Parker, John Elliott	



Parker, Louise Buell	N.Y.	Pate, Fairy Nell	D.C.
A.B. in Ed. 1947, New York State Teachers College, Potsdam		Patla, Andrew Richard	D.C.
A.M. 1949, The George Washington University		B.B.A. 1947, Fenn College	D.C.
Parker, Muriel Mary	D.C.	Patlen, Bernard Leonard	Va.
Parker, O. B.	Md.	Patrick, James Clarence	Ill.
Parker, Rachel Tims	Ark.	Patsavas, Constantine Chris	Wash.
Parker, Ralph Woodford	Md.	Patt, Andrew Jeremiah	D.C.
A.B. 1939, Georgetown College		Patten, Stanley Fletcher, Jr.	
Parker, Richard Dale	Md.	B.S. 1949, The George Washington University	
Parker, Richard Ferman	D.C.	Patterson, Frances Tellefson	D.C.
Parker, Ross Calvin, Jr.	Fla.	Patterson, Gayle Devon	Md.
Parker, R. Elmo	W.Va.	Patterson, Gordon Alexander	D.C.
Parker, Thomas	D.C.	B.S. 1919, United States Naval Academy	
Parker, Thomas Henry	D.C.	Patterson, Jane Pauline	D.C.
Parker, Victor Harwell	Miss.	A.B. 1929, University of Kentucky	
A.B. 1941, Southwestern Louisiana Institute		Ed.M. 1941, University of Pittsburgh	
A.M. 1948, The George Washington University		Patterson, John Edward	Tenn.
Parkinson, Joyce Valerie	D.C.	Patterson, Joseph William	Iowa
Parkinson, Kenneth Wells	Md.	Patterson, Phyllis Arnett	N.J.
Parkinson, Richard Wells	Md.	Patterson, Ruby Savannah	N.C.
Parkinson, Robert Leslie	Ind.	Patterson, William Amos	D.C.
Parkinson, Roger West	Md.	Patterson, William Strong	D.C.
Parks, Albert Benning	D.C.	A.B. 1940, Erskine College	Fla.
A.B. 1942, The George Washington University		Pattillo, Andrew Gramling, Jr.	
Parks, James Theodore	Okla.	B.S. 1949, University of Florida	Va.
Parks, Kendrick Wellman	Va.	Patton, Arthur Gordon	
Parman, Nora Jean	Ohio	A.B. 1946, Yale University	Md.
Parmele, Ralph Owen	D.C.	Patton, Calvin Eugene	Calif.
Parmer, Margaret Anne	Minn.	B.S. 1941, University of Southern California	
Parojinog, Simplicio Cuyno, Jr.	Va.	Patton, Louis Edward	Md.
Parish, James Shewood	Va.	Patton, Raleigh Scott	Tenn.
Parish, John Poindexter	Va.	A.B. 1948, University of Chattanooga	
Parish, Matthew Denwood	Va.	Patty, Clarence Ralph, Jr.	Va.
A.B. 1934, University of Virginia		B.S. in E.E. 1940, University of Tennessee	
Parrott, John Aubrey	Va.	Paul, Albert Franklin III	Md.
Parry, Eleanor Elizabeth	D.C.	Paul, Alvin Wilson	N.Y.
A.B. 1941, Taylor University		Paul, Anita Florence	Mass.
Parry, James Davidson	D.C.	Paul, Beth Koenig	Va.
Parrish, Muriel Hope	N.Y.	Paul, Carl Frederick, Jr.	N.Y.
A.B. 1946, University of Illinois		A.B. 1932, University of Rochester	
Parrell, David Elwood	Md.	LL.B. 1935, Harvard University	
Parsons, Francis Alan	Md.	Paul, Charles Bennett	D.C.
Parsons, Mary Persis	D.C.	A.B. 1949, The George Washington University	
Partin, Franklin Ambrose	Va.	Paul, LeRoy Spencer	D.C.
Partridge, Frances Jane	D.C.	Paullette, Edward Wiltse	Va.
A.B. 1931, University of Illinois		A.B. 1932, Hampden-Sydney College	
A.M. 1939, University of Chicago		A.M. 1943, University of Maryland	
Pasbach, Lawrence R.	Mich.	Paulisch, Eugene Bernard	Pa.
Paschal, Buford Haran	Ala.	A.B. 1949, The George Washington University	
Pasciuti, Edward Angelo	N.Y.	Paul, Alton Morton	R.I.
Pasco, Nicholas Daniel	Mass.	Paulsen, Wilbur Harper	D.C.
Pash, Edgar Constantine Boris	Va.	Paulson, David	D.C.
Pash, Oliver Henry	Va.	Paulson, Norman Clarence	S.D.
Paskoski, Joseph John	N.J.	Paustian, Cornelia Munz	D.C.
Pasquale, Matthew Richard	Pa.	B.S. 1929, A.M. 1930, Columbia University	
Passa, Isabelle Louise	Mich.	Ph.D. 1943, University of Missouri	
Passaro, Anthony Noel	Md.	Pavia, Joaquin Antonio	N.Y.
Pasternak, Robert	N.Y.	Pavich, Milan O.	Pa.
A.B. 1938, University of Wisconsin		B.S. in E.E. 1948, University of Pittsburgh	
Pasternak, Stephen	W.Va.	Pavis, William W.	D.C.
Pastie, Peter John	Mass.	Pavlat, Robert Kendall	Md.
Paston, Greta Mina	N.Y.	A.B. 1949, The George Washington University	
Pastor, Sylvia I.	Ohio	Pavlu, Lawrence Kenneth	N.J.
Pastoriza, Ralph Babcock	N.Y.		
B.S. 1944, California Institute of Technology			
Patch, Robert John	D.C.		
B.S. 1948, University of Michigan			



Pawley, Edward Porcher	N.Y.	Peoples, Shirley Roberta	D.C.
Payne, Bettie Louise	Tex.	Peet, William Charles	Va.
A.B. 1940, Texas Technological College		Peifer, William Houston	Pa.
Payne, Bruce McCollum	Va.	Peikin, Daniel	D.C.
Payne, Claude Alvin	Va.	Peimann, Esther Elizabeth	S.D.
Payne, Emily Jeanine	D.C.	Peisner, Arthur A.	D.C.
Payne, Francis Milas	Va.	Pelham, David Elliot	D.C.
Payne, Francis Xavier	Md.	B.S. 1931, Tufts College	D.C.
Payne, Hammond Richard	Md.	Pelikan, Robert Grant	D.C.
A.B. 1947, Emory University		Pell, Arthur Jack	D.C.
Payne, Hester Sydnor	Va.	Pell, Paul B.	D.C.
Payne, Howard White	Ga.	Pelleri, Leo Maurice	
Payne, John William	Va.	LL.B. 1949, The George Washington University	Va.
Payne, Joyce Lee	W.Va.	Pelletier, Albert Joseph, Jr.	D.C.
Payne, Phoebe Wilson	W.Va.	Pelletier, Avilla A.	Mass.
Payne, Robert Roscoe	W.Va.	Pelletier, Beverly Mary	Pa.
A.B. 1941, Shepherd College		Pelmoner, Albert Leon	
Payne, Rosser Hamilton, Jr.	Va.	A.B. 1949, University of Pennsylvania	D.C.
Payne, Thomas Towles	D.C.	Pelto, Victor Hugo	Pa.
Payne, William Darby	D.C.	Pelton, Marion Henrietta	
A.B. 1949, University of Maryland	Brazil	B.S. 1934, Pennsylvania State Teachers College, Edinboro	
Payro, Roberto Pablo		A.M. 1947, The George Washington University	Minn.
A.B. 1946, Haverford College		Pemberton, Henry Walter	
A.M. 1949, University of Michigan	Mass.	A.B. 1947, Amherst College	D.C.
Pazera, Joseph Edward	Tex.	Pemberton, William Charles	Puerto Rico
Peachey, Robert Paul	Md.	Pena, Rafael Hector	Md.
Peacock, Carl LeRoy	Ala.	Pence, Donald Charles	
Peacock, Harold		B.S. 1943, United States Military Academy	D.C.
A.B. 1941, Columbia University	D.C.	Pence, Grace Alice	Calif.
Peacock, Jack Travis	N.C.	Pence, Margaret Langley	
Peake, Evelyn Chloe	D.C.	A.B. 1947, Hollins College	
Pear, Bertram Lincoln		A.M. 1949, Stanford University	Va.
A.B. 1947, The George Washington University	D.C.	Pence, Thomas Arthur	Ark.
Pear, Leon		Pence, Virgil Lewis	Va.
B.S. 1947, University of Maryland	D.C.	Pendell, Martha Jane	W.Va.
Pear, Vivian Charlotte	D.C.	Pendergast, Charles William	D.C.
Pearce, Franklin Lee	D.C.	Pendergast, Edward Henry, Jr.	Va.
Pearce, Ira Hersey	Fla.	Pendergrass, John Mullard	
Pearce, James DeRemer	N.J.	A.B. 1945, Kalamazoo College	D.C.
Pearce, James Donald	Md.	M.P.A. 1946, Wayne University	
Pearce, Marjorie Lou	D.C.	Pendleton, Edmund E., Jr.	
Pearlman, Belle	Md.	B.S. 1942, University of Pennsylvania	Md.
Pearson, Beverly Stocking		LL.B. 1948, Georgetown University	D.C.
A.B. 1940, Vassar College	Minn.	Pendleton, Edmund Elliott	
Pearson, Ellsworth Carl	Ark.	Pendleton, George Cassidy	
Pearson, Eugene Marion	D.C.	B.S. 1942, University of Maryland	W.Va.
Pearson, Thomas Joseph	Ill.	LL.B. 1948, Georgetown University	Md.
Pearson, Vera Maxine	N.J.	Penn, Anne E.	S.D.
Peartree, Frank Theodore	N.J.	Penn, William Allen	D.C.
A.B. 1949, William Jewell College	D.C.	Penne, Harold Biggins	Va.
Peartree, Jennie Ponulak		Penningroth, Ann	D.C.
Peaslee, Patricia Dorothy	D.C.	Pennington, Henry Alva	Va.
B.S. 1917, University of Cincinnati		Pennington, John Byron	Va.
Peatross, Robert Mason	D.C.	Pennock, George Biddle	Miss.
Peck, Bernard	N.Y.	Pennock, Margaret Biddle	N.Y.
A.B. 1939, Indiana University		Penny, Lola	W.Va.
A.M. 1941, Columbia University	Tenn.	Pentecost, Richard Livingston	Ill.
Peck, Howard Mather	Iowa	Pepper, Hobart Garrett	Pa.
Peck, Millard, Jr.	D.C.	Peppers, Richard Langford	Pa.
Pecot, Rebecca Koonce	Calif.	Perce, LeGrand Winfield III	Md.
Peden, Robert Carl		Percival, William Alfred	Md.
B.S. 1928, United States Naval Academy		Perdew, Josephine Louise	Md.
M.S. 1938, University of California	Minn.	Perdew, Robert Beasley	Puerto Rico
Pederson, Harold Edward	Miss.	Perenich, Margaret Lucy	D.C.
Peel, Edd Foster	D.C.	Perez, Arnaldo	
Peel, Ella Leuvenia	Va.	Perez, Frank Herbert	
Peel, Fred Welch, Jr.		A.B. 1949, The George Washington University	
B.S. 1939, LL.B. 1942, Harvard University	N.C.		
Peeler, Van Buren	D.C.		
Peeples, Irving Warren			



Perez, Horacio Hugo	D.C.	Peters, Marion Taylor	Va.
B.S. 1946, Louisiana State University		Peters, Mary Anne	Va.
Pérez, Jorge Ramón	Puerto Rico	Peters, Merritte William	D.C.
B.S. 1949, The George Washington University		Petersen, Stanley Wilhelm	N.Y.
Perez, Louis Vincent	D.C.	A.B. 1942, The George Washington University	
Perez, Wilda C.	Va.	Petersen, Vivian W.	D.C.
Perez-Oliveras, Abraham	Puerto Rico	Peterson, Betty Lou	D.C.
Pergaud de Barbaud, Hubert Paul	France	Peterson, Charles David	Maine
Pericles, John	Pa.	A.B. 1932, Harvard University	
Perkett, Emil Elmer	N.Y.	Peterson, Edgar Francis, Jr.	D.C.
Perkins, Alfred William, Jr.	D.C.	Peterson, Elinor Anne	Va.
Perkins, Billie Louise	Tex.	Peterson, George Konstantinos	N.C.
Perkins, Edgar Madison, Jr.	D.C.	Peterson, Harold E.	D.C.
Perkins, Mark Edward	D.C.	Peterson, Harvey Wayne	D.C.
Perlman, Al B.	Wis.	Peterson, Irma Carolyn	Va.
Perlman, Elisheva	Israel	B.S. 1935, University of Illinois	
Perlman, Phyllis	D.C.	Peterson, Ivar Clarence	Va.
Perlson, Norman	D.C.	B.S. in A.E. 1938, University of Washington	
Perna, Louis Robert	D.C.	Peterson, Jeanne Elaine	Minn.
Perrone, Jeanne d'Arc May	D.C.	Peterson, Marion Ricker	D.C.
Perron, George Peter	D.C.	Peterson, Marjorie Isabel	Mass.
A.B. 1940, The George Washington University		Peterson, Marshall Noel	Miss.
Perron, Theodore Peter	D.C.	Peterson, Nad A.	Utah
B.S. 1946, M.S. 1949, The George Washington University		Peterson, Patricia Ann	Va.
Perrott, Samuel Ralph	N.Y.	Peterson, Robert Cazelles	D.C.
Perrott, Thomas Andrew, Jr.	Va.	B.S. 1949, Massachusetts Institute of Technology	
Perrott, Virginia Marie	Va.	Peterson, Robert Homer, Jr.	N.C.
Ferruso, Edith Marie	D.C.	Petkovich, Samuel	Ohio
Ferruzzi, John	Va.	Peto, John	N.J.
Ferry, Anna Mae	D.C.	B.S. 1947, College of the City of New York	
Ferry, Beverly	D.C.	Petrakis, George P.	D.C.
Ferry, Dorothy Frank	Ky.	Petrick, Edward Joseph	D.C.
Ferry, Elena Victoria	N.Y.	Petrie, Emily Elizabeth	D.C.
A.B. 1948, Hunter College		Petrolino, James Stuart	N.Y.
Ferry, Grady, Jr.	Ala.	Petroni, Russell William	Pa.
Ferry, Harry Carpenter	D.C.	Petroutsas, Antigone D.	D.C.
Ferry, Jesse P., Jr.	Mass.	Petroutsas, Stella Demetria	D.C.
Ferry, John Kenneth	Colo.	Petroutska, Josephine Anne	D.C.
Ferry, Norman Ray	D.C.	Petsche, George Theodore	Va.
Ferry, Olive Violet	D.C.	Petschke, Everett Julius	Va.
Ferry, Robert Charles	Miss.	Pettigrew, Jamie Lucille	D.C.
Ferry, Robert Moore	Mass.	A.B. 1947, The George Washington University	
A.B. 1949, LL.B. 1949, University of Buffalo	N.Y.	Pettigrew, W. B.	Va.
Perry, Thomas Norman	D.C.	B.S. 1933, Northwest Missouri State Teachers College	
Perschnick, Helen Mae	D.C.	Pettus, Francis Cornelison	D.C.
Person, Vernon James	Va.	A.B. 1930, University of Hawaii	
Persson, Norman Edward	D.C.	Petty, James Spilman	Va.
Pesch, Joseph Louis	Md.	Petty, Richard Alden	Va.
Peselnick, Louis	D.C.	Petty, Sarah Smoot	Va.
Pesoux, Ernest Eugene, Jr.	N.J.	B.S. 1934, Mary Washington College	
Peskind, Sarah Ruth	Ill.	Peyton, William Halliday, Jr.	Va.
Pess, Louis	D.C.	Pfeiffer, Albert Randolph	D.C.
B.S.S. 1938, College of the City of New York		Pfeiffer, Frederick Thompson	D.C.
Peter, Thomas Armistead	Ohio	A.B. 1947, University of North Carolina	
Peteras, Ray Anthony	Pa.	Pfister, Elvera	Ohio
Peters, Albert Fitz-Randolph, Jr.	D.C.	Pfuntner, Carl Herman	Fla.
Peters, Clarence Oswald	W.Va.	A.B. 1948, The George Washington University	
A.B. 1949, Marshall College		Phelan, Albert Frank	Va.
Peters, Dorothy Ellen	D.C.	B.S. 1949, Loyola University of Los Angeles	
Peters, Gerald Owen	Va.	Phelan, Catherine E.	Wyo.
B.S. Harrietta Sinclair	Va.	A.B. 1936, Clarke College	
Peters, John Earl	D.C.	Phelan, James Frederick	Md.
B.S. 1945, Madison College		Phelan, James Thomas	Pa.
A.B. 1923, A.M. 1924, West Virginia University		B.S.S. 1944, LL.B. 1948, Georgetown University	
Peters, Julius Melvin	Md.		
A.B. 1938, A.M. 1942, The George Washington University			



Phelan, Mary B.	D.C.	Pickering, Richard Carlyle	Ind.
Phelan, Patrick John	Va.	A.B. 1948, Indiana University	
Phelps, Allen Warner	D.C.	A.M. 1949, Columbia University	Ohio
Phelps, Robert Francis	Iowa	Pickering, Woodrow Harold	Va.
Phelps, Warren Francis	D.C.	Pickett, Jack Milton	D.C.
Phelps, William Wendell	Calif.	Pickett, Nita Alleyne	
A.B. 1948, The George Washington University		A.B. 1932, The George Washington University	D.C.
Pherson, John Randolph	D.C.	Pickett, Robert Eugene	D.C.
A.B. 1948, The George Washington University		Pickler, William Claude, Jr.	Pa.
Phibbs, Thomas Bewley, Jr.	D.C.	Piczak, Walter Alfred	
Philipson, Bruce Glueck	D.C.	A.B. 1949, Wilkes College	Va.
B.C.E. 1948, Catholic University of America		Pida, Josephine Boivin	N.Y.
Phillips, Antonina Josephine	Va.	Pidgeon, Joseph William	D.C.
Phillips, Clinton A.	Va.	Piedrahita, Ruben	Md.
Phillips, Donald Twyford	W.Va.	Pierce, Edward A., Jr.	Va.
Phillips, Duncan Boyer	Va.	Pierce, Henry Maurice	
Phillips, Elwin Riley	D.C.	A.B. 1949, The George Washington University	Mich.
Phillips, Frances Guck	Va.	Pierce, James Baker	
A.B. 1914, Wellesley College		B.S. in E.E. 1943, University of Michigan	D.C.
Phillips, Frederick David	D.C.	Pierce, Jana Marie	D.C.
A.B. 1949, The George Washington University		Pierce, John Roderick	Va.
Phillips, Gayle Joseph	D.C.	Pierce, Olivia Baulez	R.I.
Phillips, Gloria Liebner	Md.	Pierce, Russell Joseph	
Phillips, Gordon Allison	Ark.	B.S. in M.E. 1940, Rhode Island State College	Mass.
Ph. B. 1947, University of Chicago		Pietras, Chester Joseph	Va.
Phillips, Johnnie Maude	D.C.	Piggott, Lillian L.	D.C.
A.B. 1936, Mississippi Woman's College		Pike, Albert Hamilton	Pa.
Phillips, Kenneth Robert	Mich.	Pilch, Anthony Felix	D.C.
Phillips, Laura Marley	Va.	Pileggi, Joseph	D.C.
Phillips, Lawrence Vince	D.C.	Piller, Gertrude Mary	Va.
A.B. 1949, The George Washington University		Piller, Kitty	D.C.
Phillips, Lloyd James	Md.	Pillow, David James	Va.
Phillips, Mary Jane	Va.	Pilon, Dorothy Killeen	D.C.
B.S. in Ed. 1934, University of Pennsylvania		Pimentel, Ralph L.	N.J.
Phillips, Paul Richard	Calif.	Pimm, Donald Williams	
A.B. 1947, University of California		A.B. 1949, Dickinson College	Fla.
Phillips, Pauline Grace	D.C.	Pinch, Edward Thomas	D.C.
A.B. 1934, Mississippi Woman's College		Pinching, Ellen Marie	D.C.
Phillips, Richard Ward	Wash.	Pincus, Arthur	
Phillips, Samuel LaFayette	Md.	A.B. 1948, The George Washington University	D.C.
Phillips, Sanders E.	D.C.	Pincus, Marvin	N.Y.
Phillips, Thomas Mansfield	D.C.	Pincus, Saul	
Philpott, Frederick Charles	D.C.	B.S. 1941, College of the City of New York	N.Y.
B.S. 1947, University of Maryland		Pincus, William	
Philpot, Ruby Myers	Md.	A.B. 1941, Brooklyn College	D.C.
Phinney, Alan Yardley	Va.	A.M. 1948, American University	D.C.
Phippins, Edna Mae	D.C.	Pindell, William Hamilton, Jr.	
B.S. 1941, Mary Washington College		Pine, Donald Kay	
Phipps, Albert	D.C.	A.B. 1949, The George Washington University	D.C.
Piaggio, Hernando Ernesto	Bolivia	Pingley, Sally Belle	Md.
B.H. 1941, University of LaPaz, Bolivia		Pinion, Jack Andrew	
Piatt, Victor Raymond	N.M.	B.S. 1938, University of Nebraska	Mass.
B.S. in Ch. E. 1940, Kansas State College of Agriculture and Applied Science		Pinkham, Fabian	Md.
Picciano, Eugene Michael	D.C.	Pinkham, Richard Collins	
A.B. 1948, The George Washington University		B.S. in Ch.E. 1948, Northeastern University	Kans.
Picciano, Marie Emile	D.C.	Pinks, Robert R.	
Pickens, Homer C., Jr.	N.M.	B.M. 1936, Southwestern College	Ohio
Pickens, John Kenneth	D.C.	A.M. 1947, University of Maryland	
A.B. 1939, LL.M. 1949, The George Washington University		Pins, Rudolph Leopold	D.C.
LL.B. 1942, Harvard University		A.B. 1949, Western Reserve University	Md.
Pickering, Leonard Leroy	Okla.	Pio, Robert Francis	Va.
		Piper, Barbara Jean	
		Piper, Glenn C.	Pa.
		B.S. 1950, Pennsylvania State College	Va.
		Pipich, Frank Joseph	
		Pippin, Millard Franklin, Jr.	



Pirilla, Genese Vincent	Pa.	Poe, Robert Vernon	Va.
Pirog, Peter	Va.	Poel, William Elias	N.Y.
Pistek, Georgiana	D.C.	A.B. 1937, Brooklyn College	
Pitchford, Leslie Lee, Jr.	Va.	Poff, Sylvester Eugene	D.C.
A.B. 1948, Roanoke College		Poffenberger, Josephine Mable	D.C.
Pitman, Park Ware	Tex.	Pogodzinski, Theodore Chester	Pa.
Pitre, Barbara Faye	La.	Pohlmann, May Lucille	Iowa
Pitt, Harry	N.Y.	A.B. 1944, Augustana College	
Pitt, Mary Libeau	Va.	Pokrovski, Georgi Petrovich	D.C.
Pittenger, John Orrin	D.C.	Polak, Eva	D.C.
A.B. 1943, Pennsylvania State College		Poland, Florence Walton	Va.
LL.B. 1948, University of Pennsylvania		Polanskey, John, Jr.	Pa.
Pittle, Victor	D.C.	Polaschik, Stephen	Pa.
Pittman, Robert Julian	D.C.	Poljack, Helen	Vt.
Pizzano, Robert Arthur	Ohio	Polk, Helen Ruth	D.C.
Pitts, Denver Collyn	D.C.	Pollack, Leonard	Pa.
Pitts, Harold Eugene	D.C.	Pollard, Floyd Luchian, Jr.	Tex.
Piver, Goodman	D.C.	Pollard, John Ray	Del.
Piver, Julius Samuel	D.C.	Pollock, Robert Emmett	Va.
B.S. 1948, The George Washington		Pollow, Charles Howard	Wash.
University		Polovoy, Albert Bernard	D.C.
Piyadui, Voraphong	Siam	Pomerantz, Leonard Hyman	D.C.
Pizer, Robert Simon	D.C.	Pomeranz, Jerome Raphael	N.J.
Pizer, Samuel	N.Y.	Pomeroy, Betty W. P.	Va.
A.B. 1945, The George Washington		A.B. 1947, Middlebury College	
University		Pomeroy, Harlan	Conn.
Pizza, Harry Joseph	D.C.	B.S. 1944, Yale University	
Pizzano, Robert Arthur	Mass.	LL.B. 1948, Harvard University	
Planck, Louise Christine	Conn.	Pommer, Alfred Michael	Va.
A.B. 1948, Middlebury College		A.B. 1941, Grinnell College	
Planishek, Anne Mary	Pa.	M.S. 1947, State University of Iowa	
Plaskett, Anne Elisabeth	D.C.	Pond, Bert Chauncey	D.C.
Plasse, Maurice Benoit	D.C.	Pond, Hartley Linwood	Maine
A.B. 1949, University of Maryland		B.S.E. 1947, University of Michigan	
Platky, Leon David	D.C.	M.S. 1948, The George Washington	
Platt, Frank Leslie	Iowa	University	
Platto, Leon	N.Y.	Ponder, Peggy Lou	Colo.
A.B. 1937, Brooklyn College		Ponow, Dell Arthur	Ill.
Platz, Bruce William	Mich.	Pons, Alice Jeane	D.C.
Playnick, Norma	D.C.	B.S. 1949, University of Maryland	
Playnieks, Dzidra Renate	Md.	Ponton, Ruth Virginia	Va.
Plawsky, Seymour	N.Y.	B.S. 1937, Virginia State Teachers	
Pleacher, John King	Pa.	College, Farmville	
A.B. 1949, The George Washington		Pool, Louise May	D.C.
University		Poole, Chester Hyle	N.Y.
Pleasants, John Franklin	Va.	Poole, Robert Smallwood	D.C.
Pletcher, Ralph Weldon	D.C.	Pope, Dorothy Ackermann	D.C.
B.S. 1948, University of Maryland		Pope, Fannie Fairchild	Colo.
Plotkin, Leonard	Fla.	Pope, James Sterling	Colo.
Plotkin, Sally	Pa.	Popham, James Edward	Va.
Plouffe, Claire Lucille	D.C.	Popham, Wyatt Lee	N.Y.
Pluge, Kathryn	D.C.	Popovic, Angelina	D.C.
Plumb, Rosemary Dengler	D.C.	Poritzky, Estelle	N.Y.
A.B. 1944, University of Rochester		Porrizzo, Alfred Mark	N.Y.
A.M. 1948, The George Washington		Porro, Anita Rose	N.Y.
University		Porro, Ralph Anthony	N.Y.
Plumpton, Vincent William, Jr.	D.C.	Port, Bennett Edward	N.Y.
Plyer, Alfred Hutchinson, Jr.	Tex.	A.B. 1949, Syracuse University	
B.S. 1948, Rice Institute		Port, William Lockhart	Md.
Plyer, Betty Lou Robinson	Md.	Porteous, Walter Alexander	N.Y.
Plyer, Charles Herbert, Jr.	Fla.	B.S. 1949, Syracuse University	
Plymyer, Ray Earl	Pa.	Porter, Bennet Allen, Jr.	D.C.
B.S. 1948, Pennsylvania State College		Porter, Charles Williamson	La.
Poage, Jack Pat	W.Va.	A.B. 1948, University of North	
B.S. 1949, West Virginia University		Carolina	
Poch, Donald Richard	D.C.	Porter, Milda Mae	D.C.
Poch, Martin Carl	Wash.	Porter, Neil Alfred	Mo.
A.B. 1924, Concordia College, Ind.		Porter, Richard Lee	D.C.
B.D. 1926, Concordia Theological		Porter, Ross George	D.C.
Seminary		Porterfield, Alice Antoinette	Va.
Pocino, Vincent Angelo	N.J.	Porterfield, Marguerite	Va.
Podolski, Gerald Anthony	D.C.	Porterfield, Richard Orval	Mich.
Podosek, Norma Roberta	N.J.	Portuguese, Leonard Kenyon	D.C.
B.F.A. 1949, University of		LL.B. 1948, Rutgers University	
Pennsylvania			



Portwine, Ralph Samuel	Mich.	Pratt, Curtiss Robert	Ill.
Posey, Shirley Belle	Va.	Pratt, Ray Chase, Jr.	D.C.
Posluszny, Stanley Joseph	N.J.	Pravel, Bernarr Roe	Tex.
B.S. 1942, Northeastern University		B.S. in Ch. E. 1947, Rice Institute	D.C.
Posnak, Marianne E.	Pa.	Prebilich, John B.	D.C.
Posnansky, Rosalie Lucille	Mo.	Preece, William Martin	D.C.
Posner, Leonard Raymond	Conn.	Prencipe, Leonardo	D.C.
A.B. 1939, University of Connecticut		Prencipe, Nicholas Vincent	Pa.
LL.B. 1942, Yale University		Prendergast, James Francis	
Posner, Martin	N.Y.	A.B. 1938, Lafayette College	Tex.
Post, Beverly Suzanne	Va.	Preslar, Stephen Franklin	N.Y.
Postman, Martin Samuel	D.C.	Presler, Robert Delos	N.Y.
B.S. in E.E. 1946, Virginia		Press, Joel Jay	Va.
Polytechnic Institute		Pressley, Patricia Smith	D.C.
Poston, John William	Md.	Preussutti, Arthur David	Tenn.
Poston, Met Ray	Va.	Preston, Edwin Page	
B.S. 1942, University of Chattanooga		LL.B. 1948, Washington and Lee	
Poston, Raymond Lee, Jr.	Va.	University	Iowa
Poston, Robert Rolland	Va.	Preston, Lenais Todd, Jr.	N.Y.
B.S. 1934, State University of Iowa		Preston, Rita Marie	Md.
Potolichio, Rodney Alphonso	N.Y.	Preston, Shirley Andrew	D.C.
A.B. 1943, Manhattan College		Preston, Walter Harlan	Pa.
Potter, Holbrook Louis	D.C.	Prete, Lucy Theresa	D.C.
Potter, Philip Nelson	Md.	Prevette, Roscoe	N.J.
Potter, Ralph E.	D.C.	Previte, Charles Richard	D.C.
B.M.E. 1945, The George Washington		Prevost, George Mallet, Jr.	N.Y.
University		Prezis, Samuel B.	Md.
Potter, Richard Dale	Ind.	Price, Archie Boyce	D.C.
Potter, Samuel Clark, Jr.	Pa.	Price, Betty Anne	Calif.
Potter, Stanley Eugene	W.Va.	Price, Charles William	Calif.
Potter, Thomas Kelly, Jr.	Tenn.	Price, Curtis Lee	N.Y.
Potter, Thomas Willoughby, Jr.	Ill.	Price, Edward James	N.Y.
B.S. in Ed. 1949, Eastern Illinois		Price, Edwin	D.C.
State Teachers College		Price, Elizabeth	
Potts, Charles Early	Va.	A.B. 1941, Columbia University	
Poulase, Guss Nicholas	D.C.	A.M. 1944, University of Minnesota	D.C.
Pournaras, Stephen William	R.I.	Price, Elizabeth Ruth	
A.B. 1942, Brown University		A.B. 1926, Oberlin College	N.Y.
Powdermaker, Paula Claire	N.J.	A.M. 1930, Columbia University	Va.
Powell, Alfred Allen	Va.	Price, Elsa Louise	Md.
Powell, Bonney M.	D.C.	Price, Eve S.	N.C.
Powell, Charles Lee	Colo.	Price, Helen Vera	Va.
Powell, Dainty Mildred	D.C.	Price, Hilary Eugene	Md.
Powell, Donna Lee	Va.	Price, Hoyt Glenn	Tenn.
Powell, John Frederic, Jr.	Md.	Price, James Bohlin	Va.
Powell, Sally Lou	D.C.	Price, James Travis	Nev.
A.B. 1932, Georgia State Woman's		Price, Joseph Lindsey, Jr.	Del.
College		Price, Milo V.	D.C.
Powell, William Alfred	D.C.	Price, Ralph Louis	
Power, Andrew Paul	N.Y.	Price, Robert Nelson	D.C.
A.B. 1947, The George Washington		A.B. 1948, Haverford College	Conn.
University		Price, Roger Carson	D.C.
Power, Kathryn Stewart	D.C.	Price, Roy Warren	D.C.
B.S. 1939, Columbia University		Price, Walter Withrow, Jr.	
Powers, Carolyn Isabelle	W.Va.	Price, Zelma Kennedy	Md.
Powers, Chris	D.C.	A.B. 1930, Belhaven College	
Powers, Helen Katheryn	D.C.	Prickett, Hilda M.	Md.
A.B. 1931, Cedarville College		B.S. 1920, Ohio State University	
Powers, James Donald	Md.	Prickett, Robert Lee	N.Y.
Powers, John Thomas	Conn.	B.S. 1948, University of Maryland	Va.
B.S. 1949, Georgetown University		Priest, Gilbert Lyman	Mass.
Powers, Lester Alvis, Jr.	Mich.	Primm, Geraldine Viohl	
Powers, Merry Anne	Md.	Prince, Janice Louise	Pa.
Powers, Richard Lawrence	Ill.	A.B. 1947, Bates College	
Powers, William Joseph	Va.	Pringle, Dorothy Smallwood	Pa.
A.B. 1948, The George Washington		A.B. 1930, Goucher College	Va.
University		Pringle, John D.	Ohio
Powers, William L.	Ohio	Pringle, Nathan Wells	Mass.
A.B. 1920, Princeton University		Prior, Jane Anne	Va.
Pownell, Mary Jean	Ind.	Prior, Philip Bernard	D.C.
Poznak, Morton	N.J.	Pritchard, Robert Linton	
Prather, Elizabeth Ann	W.Va.	Procaccino, Joseph Anthony	
B.S. 1946, West Virginia University		A.B. 1943, College of the City of	
Prather, John Lyle	D.C.	New York	







Raden, Henry	D.C.	Ranklin, Annie Laurie	Miss.
Rader, Stephanie Czech	Va.	A.B. 1940, Hollins College	Va.
A.B. 1937, Cornell University	Pa.	Rankin, Bernice Phillips	D.C.
Radicevic, Katherine Mary	Conn.	B.S. in Ed. 1941, Boston University	La.
Rado, Jeannetta Wilson		Rankin, Billy Frank	La.
A.B. 1940, Vassar College		Rankin, Doris Gates	La.
A.M. 1946, Tufts College	D.C.	B.S. 1946, Louisiana State University	Ores.
Radomski, Jack London		Rankin, George Dobson	Minn.
B.S. 1942, University of Wisconsin	D.C.	Rankin, Robert Rolla	D.C.
Radomski, James Alexander	D.C.	Ranney, John Leslie	Va.
Rael, Frank Joseph	D.C.	Ransom, Gene Mallard	D.C.
Raffelt, Edward James	D.C.	Ransom, Richard Burtus	Va.
Raftery, Lawrence Clyde	Md.	Ranvier, Gilberte Louise	Ind.
Ragnell, Harold Arthur	Md.	Rapaport, Janet Reba	
B.S. in M.E. 1943, Rhode Island		Rapp, Mary Ruth	D.C.
State College		B.S. 1934, Indiana University	
Ragsdale, Gerald Hamilton	Mont.	Rapp, Raymond Edward, Jr.	
A.B. 1938, Montana State University	Va.	B.S. 1948, The George Washington	
Raia, Edward Clement	D.C.	University	Ill.
Rainard, Nancy Elisabeth	Mass.	Rappaport, Bernard Raymond	Va.
Rainard, Ulric Hubert	Va.	Rapport, Michael Brandies	Pa.
Rainey, Samuel Charles		Raring, Frederick William	Md.
B.S. 1946, Virginia Polytechnic		B.S. 1949, Lehigh University	
Institute	D.C.	Rasmussen, Frank Joseph	
Rains, Clare Gordon	D.C.	B.S. in M.E. 1939, University of	Va.
Rainsbury, Robert Charles	D.C.	Illinois	
Rajala, William Bernhardt	Md.	Rasmussen, Wayne David	
Rajeswari, India	Mich.	A.B. 1937, Montana State University	
B.S. 1942, M.S. 1943, University of		A.M. 1939, The George Washington	D.C.
Mysore, India		University	
M.S.E. 1949, University of Michigan	D.C.	Ratchford, Harold Michael	Mass.
Rakha, Youssef Bahgat	Ohio	B.S. 1949, University of Scranton	Ohio
Ralph, Marie Margaret	Calif.	Ratcliffe, Edward Eugene	D.C.
Ralston, Donald McKenzie		Rath, Robert Karl	D.C.
B.S. 1937, University of Michigan	Calif.	Rathbone, DeForest Zeller	Miss.
Rambo, Peggy Corinne		Ratherdale, Robert Charles	Va.
B.S. 1941, University of Southern		Ratliff, George David, Jr.	D.C.
California	Panama	Ratliff, William Richard	D.C.
Ramirez, Anita	Va.	Ratner, Max	
Ramirez, Benilde Juana	Va.	Rauch, Arthur S.	
Ramos, James Mariano	D.C.	A.B. 1947, The George Washington	Ill.
Ramos, Jose Rivera	D.C.	University	
Ramsey, A. Elizabeth	N.Y.	Rauch, Margaret Leila	Ind.
Ramsay, Gwendolyn Clare	D.C.	B.S. 1938, University of Illinois	Va.
Ramsay, James Bertrand	Mass.	Rauch, Robert Edward	Calif.
Ramsey, Walter Andrew		Raum, Jack Ronald	Md.
A.B. 1937, A.M. 1939, University		Raven, Richard Austin	Ga.
of Cincinnati	Conn.	Rawlings, Joseph Edwin, Jr.	
Rand, Alice Marion		Rawls, Nancy Vivian	Mass.
A.B. 1935, Wellesley College	N.J.	A.B. 1947, Shorter College	D.C.
Randall, Albert Joseph	Wash.	Rawnsley, George William	D.C.
Randall, Arne William		Ray, Christopher James	
A.B. 1938, Eastern Washington College		Ray, Donald, Page	
of Education	Mich.	A.B. 1941, University of Colorado	D.C.
A.M. 1940, Columbia University		A.M. 1949, The George Washington	Fla.
Randall, Berneita K.		University	Mass.
A.B. 1948, The George Washington	Va.	Ray, Patricia Jane	Fla.
University	Md.	Ray, Russell Jackson	La.
Randall, Bill David	D.C.	Raymond, Barbara June	N.J.
Randall, Courtland Stanley	D.C.	Raymond, Earl Alfred	N.Y.
Randall, Dulcie Teeter		Raymond, Oliver Frederick	D.C.
Randall, Richard Ranier		Raynor, Dorothy	Md.
A.B. 1949, The George Washington	D.C.	Raynor, Marjorie Hildebrandt	D.C.
University		Raynor, William A.	N.J.
Randall, Robert Henry, Jr.		Raynore, William Louis	D.C.
B.C.E. 1941, The George Washington		Razum, Charles Thomas	D.C.
University	D.C.	Re, Anthony John	Md.
Randle, Eleanor Fuller	Va.	Rea, Helen Jane	
Randolph, Edward Dale Appleton		Rea, James Magruder	Md.
Randolph, James Harrison		A.B. 1943, University of Maryland	Ind.
B.S. 1940, University of Tennessee	Va.	Rea, Page	
Randolph, John Lewis	D.C.	Read, Beryle Roosevelt	
Rands, Mary Audrey			



Read, Jeanne Elinor B.S. 1947, The George Washington University	D.C.	Rees, Ira Jack A.B. 1934, Municipal University of Wichita	Md.
Read, Kenneth Godwin, Jr.	D.C.	Rees, John Alva, Jr. LL.B. 1939, University of Oklahoma	Va.
Read, Mary Sue	Ill.	Rees, William Jackson	Va.
Reagan, Daniel Francis, Jr.	D.C.	Reese, Elmer Louis, Jr. B.S. 1942, University of Maryland	Md.
Reagan, James Edwin	D.C.	Reese, Ira Franklin	Va.
Reagan, Ralph Clifford	Tenn.	Reese, James Conniff	Va.
Real, Susan Rosemary	Md.	Reese, Sara Evelyn	Ga.
Reardon, Barbara Ellen	Wash.	Reeser, Ethel Arlene	Oreg.
A.B. 1948, University of Washington		Reeve, Layton Wheeler	N.Y.
Reardon, James Vincent	Mass.	Reeves, Floyd Orville	Ill.
B.S. 1939, United States Military Academy		Reeves, Richard Lewis	Va.
M.B.A. 1949, Harvard University	Pa.	Reeves, Rose Hellman	D.C.
Reardon, Phillip Henry	D.C.	Regan, James Andrew	Mass.
Reardon, Robert Eugene		Regan, Robert Summers	Va.
A.B. 1949, The George Washington University	Pa.	Reges, John Timothy	D.C.
Rearick, Anderson Melvin, Jr. B.S. 1949, Wheaton College, Ill.		Reges, Richard Andrew	Va.
Reaves, John Harold	D.C.	Reggia, Frank	Md.
B.S. in E.E. 1943, West Virginia University		Regidor, Robert	N.J.
Reaves, William Hiram	D.C.	Regula, Elmer Lee	D.C.
Reback, William	N.Y.	B.S. 1948, Butler University	
Rebello, Laura Labarthe	D.C.	Reh, Emma	D.C.
Rebert, Richard Ross	Pa.	A.B. 1917, The George Washington University	N.Y.
A.B. 1941, A.M. 1948, The George Washington University		Rehler, Joseph Edward	
Rebrovich, Matt Nick	D.C.	B.S. in C.E. 1930, Massachusetts Institute of Technology	
Reckner, Richard George	Md.	M.S. 1947, St. Bonaventure's College and Seminary	D.C.
Recktenwald, William Elmer	N.Y.	Reichard, Charlotte	D.C.
B.S. in M.E. 1948, Purdue University		A.B. 1948, The George Washington University	
Rector, Alfred Rozier	D.C.	Reichard, Thomas Woodrow	D.C.
Redd, Lavinia Lindsay	Va.	B.S. 1948, John B. Stetson University	D.C.
A.B. 1935, Randolph-Macon College		Reichow, Estelle Vernon	D.C.
Reddington, John Patrick	N.Y.	Reid, Alexander Blann	Va.
Redenius, Josephine Louisa	N.J.	Reid, Burt Allen	Fla.
Reding, Willis Biggar	Va.	Reid, Colin Campbell	Va.
Redkey, Edwin Storer	Va.	A.B. 1938, Princeton University	
Redler, Welfred Morton	Va.	Ph.D. 1941, Yale University	Va.
Redman, James Russell	N.Y.	Reid, George Bernard	D.C.
A.B. 1949, Shepherd College		Reid, George Earl	D.C.
Redman, John Roland	D.C.	Reid, James Sharp	
B.S. 1918, United States Naval Academy		A.B. 1937, Cornell University	
Redman, Louis Daniel, Jr.	D.C.	Reid, John Alden	D.C.
Redmond, Charles Bernhardt	Md.	Reid, Joseph Bernard	D.C.
Redmond, Joseph Christopher	Md.	Reid, Paul Samuel	Md.
B.S.E. 1944, Tufts College		B.S. in E.E. 1944, Virginia Polytechnic Institute	Va.
B.E.E. 1948, The George Washington University		Reid, Richard Sterling	
Redmond, Robert Lafayette	Ga.	A.B. 1943, Michigan State College	Va.
Reed, Colin Estabrook	Md.	Reid, Ruth Bull	
Reed, David Alvey	D.C.	Reid, Warren Featherstone	Wash.
Reed, Elizabeth Stafford	D.C.	Reid, William Grant	Ala.
A.B. 1938, American University		Reidenbach, Richard Rohrer	Pa.
A.B. Hallie Mae	Va.	Reidy, John Cornelius, Jr.	D.C.
A.B. 1937, The George Washington University		Reier, Nannielou	Md.
Reed, Herbert Jackson	N.J.	A.B. 1948, Goucher College	
Reed, Jean	D.C.	Reiffin, Martin Gardner	N.Y.
Reed, John Joseph	D.C.	B.M.E. 1945, College of the City of New York	
Reed, Mildred Howard	D.C.	Reiffin, Sonia M.	Va.
Reed, Nona Jean	D.C.	Reifsynder, Harold A.	D.C.
Reed, Thomas Russell	D.C.	Reifsynder, Sally Ann Evans	Pa.
Reed, William Clark	D.C.	Reigart, John Moulton	Kans.
Reed, William Leroy	Pa.	B.S. 1939, United States Naval Academy	
Reeder, Ronald Ronson	W.Va.	M.S. 1944, Massachusetts Institute of Technology	
A.B. 1943, Shepherd College			
A.M. 1946, The George Washington University			



Reikowsky, Ralph Francis	D.C.	Reynolds, Albert Field	Va.
Reilly, Edward Barry	D.C.	B.S. 1948, Columbia University	Va.
B.S. 1949, Georgetown University		Reynolds, Carolyn Jane	D.C.
Reilly, George Kenneth Gordon	Wash.	Reynolds, Chester Forrest	
A.B. 1947, The George Washington University		LL.B. 1949, The George Washington University	Va.
Reilly, Gerard Eugene	N.Y.	Reynolds, Eleanor Jane	Md.
Reilly, John Thomas, Jr.	Mass.	Reynolds, Ethel Delores	N.Y.
Rein, Charlotte	D.C.	Reynolds, Floyd Willmont	N.Y.
Rein, Edwin Fowler	Iowa	Reynolds, Gary Stewart	D.C.
Reinert, Owen Curtis	Mich.	Reynolds, George Walbridge	Va.
Reinhardt, Arthur F.	N.Y.	Reynolds, Louise Clopton	
Reinke, Jerome John	Wis.	A.B. 1940, Madison College	Pa.
Reintzel, Malcolm Francis	Md.	Reynolds, Margaret Mary	
Reiser, Armand Edouard	Va.	A.B. 1949, The George Washington University	Md.
B.S. 1948, Georgetown University		Reynolds, Patricia Amelia	Md.
Reising, Paul Joseph	D.C.	Reynolds, Ruth Matthews	Va.
B.S. 1947, Xavier University, Ohio		Reynolds, William Lavern	Va.
M.S. 1949, University of Detroit		Reynolds, William Neville	
Reisman, Milton Henry	Pa.	A.B. 1948, The George Washington University	N.J.
B.S. 1948, Drexel Institute of Technology		Rezanka, Frank Joseph	Pa.
Reisner, Arthur Frederick	D.C.	Rezler, John Edward	N.Y.
Reiss, Elliott	N.Y.	Rhame, Harold Ellis, Jr.	
Reiss, Robert Stuart	Va.	A.B. 1946, Princeton University	Pa.
Reitman, Robert Stephen	N.J.	Rhine, Mary Elizabeth	Mich.
Reitman, Seymour George	N.J.	Rhoades, Benjamin Anthony, Jr.	Va.
Reiver, Lillian	D.C.	Rhoades, Ramona Virginia	Ill.
B.S. 1941, Wilson Teachers College		Rhoads, Robert Jefferson	Md.
Rekas, Joseph	Pa.	Rhoderick, Richard Leon	
Remaley, Charles Bertella	Md.	B.S. in M.E. 1948, University of Maryland	D.C.
B.S. 1935, Allegheny College	D.C.	Rhodes, Eric Foster	D.C.
Remer, Bertram Robert		Rhodes, James Joseph	Mo.
B.S. in E.E. 1946, Duke University	D.C.	Rhodes, Jeanne Audrey	Va.
Remers, Janice	Ohio	Rhodes, Kenneth Edwin	
Remington, Joseph Joy	Ill.	B.E.E. 1949, Georgia Institute of Technology	D.C.
Remke, Mariann	N.Y.	Rhodes, Kenneth Lee	D.C.
Remmler, Olaf Donald		Rhodes, Linwood Adolphe	Va.
A.B. 1949, Middlebury College	Va.	Rhodes, Mildred Ann	Pa.
Remsburg, Alice Grainger		Rhodes, Robert Donald	Pa.
B.S. in Ed. 1938, State Teachers College, Farmville	Va.	Rhodes, Robert Garrett	
Remsburg, John Everett		B.S. 1947, University of Pittsburgh	
B.S. in Ed. 1939, University of Virginia		M.B.A. 1948, University of Pennsylvania	Ohio
Renborg, Bertil	Sweden	Rhonemus, Hattie Mae	Va.
A.B. 1948, The George Washington University		B.S. in Ed. 1944, Miami University	D.C.
Rendle, Betty Jane	Wyo.	Rhyne, Brice Wilson	Va.
A.B. 1945, Stanford University		Rhyne, Clinton George	D.C.
Rendler, Norbert Joseph	Wash.	Rhynsbarger, Robert Whitman	D.C.
Renick, Charles Mathew	W.Va.	Rice, Carol Lynn	Va.
Reno, Raymond Howard	Ind.	Rice, Charles Fenton, Jr.	D.C.
Repak, Peter N.	Pa.	Rice, Elizabeth Ann	
Repetti, Edward McNantz, Jr.	Alaska	Rice, Eugene Worthington	
Repetti, Robert James	D.C.	B.S. 1942, West Virginia University	Ill.
Reque, Robert Russell	D.C.	M.S. 1947, The George Washington University	Va.
Reque, Rose Bertha	D.C.	Rice, Geraldine Genevieve	D.C.
Resh, David Lewis	D.C.	Rice, Gertrude Bruce	
Resnick, Samuel	D.C.	Rice, John Francis	Vt.
Reverdin, Daniel Louis	D.C.	B.Ae.E. 1943, University of Detroit	D.C.
Revitz, Paula		Rice, John Lalor	D.C.
A.B. 1949, University of Maryland		Rice, John Wade, Jr.	
Rexroth, Clarence Dewey, Jr.	Pa.	Rice, Peter Paul	
Rey, Joseph	Mich.	B.S. 1938, Pennsylvania State Teachers College, Mansfield	Md.
Reyes, Raul Gregorio	Mexico	Rice, Ramon Lee	Va.
B.S. 1946, Georgetown University		Rice, Ray Howard, Jr.	Md.
Reymore, Gerald George	Minn.	Rice, Robert Lewis	Calif.
A.B. 1943, St. Olaf College		Rice, Virginia Louise	
Reynard, Charles Lisle	Va.	A.B. 1947, University of Southern California	
B.S. in E.E. 1930, University of Delaware			



Rich, Donald Jenkins	Md.	Richwine, Francis Kost	Pa.
Rich, Francis Earl	Miss.	B.S. 1941, Pennsylvania State College	
B.S. 1941, United States Naval Academy		LL.B. 1949, The George Washington University	
Rich, Harold Gilbert	Kans.	Rickards, Herbert Betz	Mich.
Rich, Peter Michael	D.C.	Ricketts, Aubrey Eugene	Pa.
Richard, Ralph Stephenson	Va.	B.S. 1949, West Virginia Wesleyan College	
Richards, Burton Morgan	Va.	Ricketts, Max Verne	Kans.
Richards, Eleanor Hamby	N.M.	Ricketts, Noble George	D.C.
Richards, Frederick William	N.Y.	B.S. 1920, United States Coast Guard Academy	
Richards, Glenn Davis	Va.	Ricketts, Robert Lee	Va.
Richards, James Carlin	D.C.	Rickmar, George Marion	Mo.
Richards, Jo-Anne Rose	N.H.	Riddell, Edward Leo	Va.
Richards, John O'Neil	Va.	Riddick, Arch Lockhart, Jr.	D.C.
Richards, Lois Compton	Va.	Riddick, John Charles	Va.
Richards, Ralph Julian, Jr.	D.C.	Riddle, Sue	Tex.
Richards, Suzanne Virginia		Riddles, Alvin Joseph	Pa.
A.B. 1948, The George Washington University		B.E.E. 1949, Catholic University of America	
Richards, Therman Lee	D.C.	Ridgeway, Fenton Stanley, Jr.	D.C.
Richards, William Robert	D.C.	Ridgeway, Jesse Edward	D.C.
Richardson, Charles Grant	Ind.	A.B. 1946, The George Washington University	
Richardson, Edward Eugene		Ridpath, Robert Vance	Ind.
B.S. in E.E. 1943, Rose Polytechnic Institute		Rieck, Richard Charles	Ohio
Richardson, Gerald Allen, Jr.	Miss.	Riederer, Adolf Willibald	D.C.
Richardson, Henri Adrien	Md.	Rieger, Rebecca E.	D.C.
Richardson, Henry A.	Va.	A.B. 1940, Hunter College	
Richardson, Howard Robertson	Va.	A.M. 1941, Columbia University	N.Y.
A.B. 1927, Elon College		Rieger, Samuel	
A.M. 1932, College of William and Mary		A.B. 1947, Brooklyn College	
Richardson, James Augustine	D.C.	M.S. 1948, New York University	Pa.
Richardson, Joan Margaret	D.C.	Rielly, Thomas Hooper	Wyo.
Richardson, Paul Bryant	D.C.	Ries, Carl Gilbert	
B.S. 1949, Davidson College		B.S. 1947, University of Wyoming	N.Y.
Richardson, Peter Wentworth	Mass.	Rieser, Samuel	
Richardson, Robert Owen	Mo.	A.B. 1947, Brooklyn College	
B.S. 1946, Drury College		M.S. 1948, New York University	Tex.
Richardson, Samuel Churchwell	Ala.	Riggan, James Maury, Jr.	Md.
Richardson, Thomas Totten	Va.	Riggins, Dale Dwight	Va.
Richardson, Walter John	Conn.	Riggs, Annette Mosher	Va.
Richardson, William Benjamin	Pa.	Riggs, Bradner Charles	D.C.
Richeimer, Walter Francis	Ohio	Riggs, Edwin Eugene, Jr.	Ky.
Riches, Leonard	Va.	Riggs, Robert Meldrum	D.C.
Richeson, Edna Marie	Ohio	Riley, Charles Francis	Pa.
A.B. 1949, Ohio University		Riley, Francis Angelo	
M.N. 1942, Western Reserve University		M.D. 1928, Georgetown University	Md.
Riches, LeRoy Milburn, Jr.	Va.	Riley, Francis C.	Va.
Riches, Stephen Olin, Jr.	D.C.	Riley, Hugh Allen	D.C.
Richman, Alice Janet	D.C.	Riley, Jane Frances	Mont.
Richman, Robert William	Colo.	Riley, Jeremiah Thomas	D.C.
A.B. 1944, Colorado College		Riley, John Edwin	N.J.
B.S. 1947, Colorado Agricultural and Mechanical College		Riley, Mary Magdalene	
Richmire, Fred Pierce	Fla.	A.B. 1945, A.M. 1949, University of Pennsylvania	Va.
Richmire, George Lowell	D.C.	Riley, Paul Sterling	D.C.
B.S. 1920, United States Naval Academy		Riley, Vernon Todd	Pa.
M.S. 1928, Columbia University		Rinaldi, Eugene	Wis.
Richmond, Alfred Wright	D.C.	Rindt, Kenneth Edward	
Richmond, Claude M.	Va.	A.B. 1941, University of Wisconsin	
B.S. 1924, College of William and Mary		A.M. 1948, University of Minnesota	D.C.
A.M. 1936, The George Washington University		Riner, William Carter	Va.
Richmond, Joseph Howard	Md.	Ring, Jack Austin	N.C.
B.S. 1949, University of Maryland		Ring, Paul Donald	N.Y.
Richmond, Roy George, Jr.	Va.	Ringel, Harold	N.Y.
Richmond, Susan Virginia	D.C.	Ringer, Eli	Va.
A.B. 1917, Randolph-Macon Woman's College		Rinker, Grace Mahon	Colo.
Richter, Jean Anne	D.C.	Rinne, Oivo Michael	Mo.
Richter, Richard Martin	D.C.	Riordan, Margaret Mary	Puerto Rico
		Rios-Lugo, Miguel Juan	Va.
		Risdon, John Louis	



Riseling, Joseph Bernard	D.C.	Roberts, Ben Lomond	Md.
Riskin, Aaron	Md.	Roberts, Beverley Jean	D.C.
Rissler, Robert Lorain	W.Va.	Roberts, Beverly Ford	Va.
A.B. 1947, Shepherd College		A.B. 1948, University of Virginia	Tex.
Rist, Janice R.	Nebr.	Roberts, Charles Monroe	N.Y.
Ritchey, Mary Ruth	Pa.	Roberts, Charlotte Anne	Va.
A.B. 1947, Mount Holyoke College		Roberts, Donna Louise	D.C.
Ritchie, Calvin Donald	Va.	Roberts, Eleanor Elizabeth	N.J.
Ritchie, Frederick Monks	Md.	Roberts, Henry, Jr.	Tenn.
B.M.E. 1949, The George Washington University		Roberts, Heyward Bradford	
Ritnour, Diane Yvonne	D.C.	B.S. 1924, United States Military Academy	Md.
Ritter, Colin	D.C.	Roberts, James Franklin	Va.
B.S. 1941, Wilson Teachers College		Roberts, James Winfield, Jr.	D.C.
Ritterpusch, Irvin John	Md.	Roberts, Jennings Nicholas	
A.B. 1950, University of Maryland		A.B. 1939, Morris Harvey College	
Rittmann, Dean Vincent	Tex.	LL.B. 1943, LL.M. 1945, Georgetown University	Ind.
Ritts, Roy Elliot, Jr.	D.C.	Roberts, John Raymond	Va.
A.B. 1948, The George Washington University		Roberts, John Summerfield, Jr.	
Ritzenberg, Albert	D.C.	B.S. 1941, University of Virginia	D.C.
A.B. 1942, University of Maryland		Roberts, Lewis Ross	Va.
Ritzenberg, Madeleine Snowden	D.C.	Roberts, Lincoln Edwin	Va.
B.S. in P.E. 1940, University of North Carolina		Roberts, Margaret	
Ritzenberg, Saul	D.C.	M.E. 1939, University of Pittsburgh	D.C.
Rivas, Luis Rene	Fla.	Roberts, Marshall Lee	Va.
A.B., B.S. 1934, La Salle College, Havana, Cuba		Roberts, Mary Kendall	Ark.
A.M. 1938, Quebec Technical School		Roberts, Mary Martitia	D.C.
Rivera, Andrés	Puerto Rico	Roberts, Nancy Catherine	Ind.
Rivera, Emillo	Puerto Rico	Roberts, Pauline	Va.
Rivera, Fernando Jose	Puerto Rico	Roberts, Perry Leonard	
Rixey, George Young	D.C.	B.S. 1938, Oklahoma Agricultural and Mechanical College	Ohio
B.S. 1937, University of California		Roberts, Raymond Francis	
Rixon, George Edward	Md.	A.B. 1949, Ohio University	Va.
Rixse, John Albert	Va.	Roberts, Richard Edwin	D.C.
Rizik, Michel	D.C.	Roberts, Richard Mansfield	
A.B. 1948, Amherst College		LL.B. 1948, The George Washington University	D.C.
Rizzo, Ann C.	N.Y.	Roberts, Russell Meade	D.C.
A.B. 1948, Trinity University	La.	Roberts, Thomas Arthur	D.C.
A.M. 1949, Tulane University		Robertson, Bedford Shelton, Jr.	N.C.
Rizzuto, Frank Vincent	N.J.	Robertson, Blanche Gardner	
Roach, Paul Arturo	D.C.	A.B. 1925, Guilford College	Ariz.
Roamer, James Mahan, Jr.	Va.	Robertson, Charles Marion	
Roane, Melvin Chester	D.C.	B.S. 1938, United States Naval Academy	D.C.
Robb, James Lawrence	Okla.	Robertson, Corinne Phelps	D.C.
Robbin, Joseph Sigmund	Va.	Robertson, Eunice May	Ariz.
Robbins, Ann D.	D.C.	Robertson, Floyd L.	
A.B. 1945, Wellesley College	Mass.	A.B. 1938, Arizona State Teachers College, Tempe	D.C.
Robbins, Chandler Seymour	Md.	Robertson, Jack Rodney	Tex.
A.B. 1940, Harvard University		Robertson, Joseph William	
Robbins, Frank Edward, Jr.	N.Y.	B.S. 1947, Agricultural and Mechanical College of Texas	Minn.
B.Ch.E. 1944, Rensselaer Polytechnic Institute		Robertson, Malcolm Higgins	Fla.
Robbins, Glenn Kingsland	Mo.	A.B. 1948, University of Minnesota	Va.
B.S. in Ch.E. 1947, Washington University		Robertson, Margaret	
Robbins, Lois M.	Va.	Robertson, Richard Dean	
Robbins, Louis Peters	D.C.	B.S. 1941, Syracuse University	Okla.
Robbins, Walter Lewis	D.C.	Robertson, Robert Earl	Md.
Roberson, Edwards Pierce	D.C.	Robertson, Roger E.	
B.S. 1939, University of South Carolina		B.S., M.S. 1942, Massachusetts Institute of Technology	D.C.
Roberson, Elbert Belmont, Jr.	D.C.	Robertson, Wilbert Joseph	D.C.
B.S. 1949, The George Washington University		Robertson, William George	
Roberson, James Edgar	D.C.	B.S. 1948, University of North Carolina	Okla.
Roberson, John Milton	Va.	Robey, Frances Jean	N.Y.
Roberson, William Donald	D.C.	Robichaux, Emily Louise	
Roberts, A. Willis, Jr.	Va.	A.B. 1942, Hunter College	D.C.
A.B. 1947, Dartmouth College		Robin, Bennett Allen	



Robin, Eugene Debs B.S. 1945, M.S. 1946, The George Washington University	D.C.	Roddis, Louis Harry, Jr. B.S. 1939, United States Naval Academy	Minn.
Robin, Rosemary Jamesina	D.C.	M.S. 1944, Massachusetts Institute of Technology	
Robinette, Marian Strom	Wash.	Rodenbeck, Frederick Ludwig, Jr.	D.C.
Robinette, Raleigh Carson	Md.	A.B. 1940, A.M. 1941, University of Nebraska	
Robins, James Edward	Nebr.	Rodenhi, Donald Lee	D.C.
Robinson, Alfred Arnold	N.Y.	Rodgers, David Arthur	N.C.
B.S. 1932, Agricultural and Mechanical College of Texas		Rodgers, Edward Oscar	Ariz.
Robinson, Anna Marion	N.Y.	B.S. 1944, University of Arizona	
B.S. 1934, Cornell University		Rodgers, James Edwin	Pa.
Robinson, Armand Irving	Pa.	Rodgers, John Robert	N.Y.
B.S. 1949, Drexell Institute of Technology		B.S. 1935, Fordham University	
Robinson, Aubrey Monroe, Jr.	N.C.	Rodgers, John William	Pa.
Robinson, Carolyn Alma	Va.	Rodgers, Marjorie Virginia	Pa.
Robinson, Charles Clark	N.Y.	Rodgers, Robert Eugene	Va.
B.S. 1939, Fordham University		Rodgin, David Willard	D.C.
Robinson, Cora	Pa.	A.B. 1949, Yale University	
A.B. 1948, University of Pittsburgh		Rodis, Joseph Sydney	D.C.
Robinson, Earl Howard	D.C.	Rodriguez, Ana Margarita	D.C.
Robinson, Edgar Louis	D.C.	Rodriguez, José Antonio	N.Y.
Robinson, Eugene Bell	Nebr.	Rodriguez, Luis Octavio	Puerto Rico
Robinson, George Harvey	Md.	A.B. 1941, A.M. 1949, The George Washington University	
A.B. 1930, West Virginia University		Rodulfo, Leonore	N.M.
A.M. 1941, University of Pittsburgh		A.B. 1942, University of New Mexico	
Robinson, Grace Geneva Standley	Mo.	Rodwell, Victor William	D.C.
Robinson, Guy Harold, Jr.	Md.	Roe, Jon Olavson	Norway
Robinson, Harold Leroy	Colo.	Roell, Edgar Allen	Ind.
Robinson, John Wesley	Md.	Roepcke, Lewis Austin	D.C.
Robinson, Lawrence Edward	Ill.	Rogal, William Walter	Va.
Robinson, Lester James, Jr.	D.C.	Rogers, Charles Joseph	Md.
Robinson, Norma Jennette	D.C.	Rogers, Charlotte David	Ky.
Robinson, Norman Julian	Va.	Rogers, Donald Neil	D.C.
A.B. 1941, University of California		Rogers, George Johnston	Calif.
Robinson, Peter Arthur	Maine	Rogers, Henry Glenn	Va.
Robinson, Philip	Mass.	A.B. 1941, Indiana University	
B.S. 1940, Boston University		M.S. 1948, University of Chicago	
Robinson, Robert Strother	D.C.	Rogers, Harold John	Pa.
B.S. in P.E. 1949, The George Washington University		A.B. 1947, University of Scranton	
Robinson, Thomas Adams	D.C.	Rogers, Jewell Edward	Ind.
Robinson, Warren Clayton	D.C.	Rogers, Joan Lee	Va.
Robitaille, Arthur Leo	Md.	Rogers, Joseph Louis, Jr.	Md.
Robitaille, Fabian John	D.C.	Rogers, Preston Charles, Jr.	Md.
Robitscher, Jonas Bondi, Jr.	D.C.	A.B. 1949, Johns Hopkins University	
A.B. 1942, Brown University		Rogers, Rejinal	Wis.
J.D. 1948, The George Washington University		Rogers, Roger Joseph	N.C.
Roblee, Dana Bush	D.C.	Rogers, Thomas Alphonso	Md.
B.S. 1927, St. Bonaventure's College and Seminary		Rogers, William Michael	Md.
M.S. 1932, New York State Teachers College, Albany		Rogg, Nathaniel Hymen	Va.
Robson, Daniel Francis	D.C.	A.B. 1934, A.M. 1935, New York University	
Rock, Herman Henry	Wash.	Roginski, Edward Eugene	D.C.
B.S. 1942, State College of Washington		Rohland, Leo	N.Y.
Rock, Joseph Oliver	D.C.	Rohlf, Paul Anthony	Pa.
L.L.B. 1942, Columbus University		Rohrs, Beverly Ann	Md.
Rockowitz, Jerome Bernard	N.Y.	Rolenson, Julio Gustavo	D.C.
Rockwell, Chester Scott	Va.	Rolfe, Cloyd Mayne	Va.
A.B. 1947, Shepherd College		Roll, Stephen	N.Y.
Rockwell, Franklin Abraham	Va.	A.B. 1948, Johns Hopkins University	
A.B. 1941, Shepherd College		Roller, Franklin Coiner	D.C.
Rockwell, Hilleary Cleveland	Md.	B.S. 1949, University of Arizona	
B.S. 1944, Maryland State Teachers College, Frostburg		Rollins, Alma Frances	D.C.
A.M. 1948, Columbia University		B.S. 1945, Wilson Teachers College	
Rodas-Garcia, Adela	Puerto Rico	Rolnick, Robert Franklin	D.C.
Rodas, Harry Edwin, Jr.	Va.	Rolph, John Fletcher	N.Y.
Roddam, Eloy Lou	Ala.	Roman, Stanley Alan	D.C.
B.S. 1940, University of Alabama		Romanoff, Julius Samuel	N.Y.
		A.B. 1943, Brooklyn College	
		Romanowski, Harold Stanley	Ind.
		Romansky, George Joseph	Pa.



Romero, Mario Saavedra	Tex.	Rosenblatt, Harry Myer	N.Y.
A.B. 1938, National University of Mexico		B.S. 1948, The George Washington University	D.C.
Romero, Theodore Robert	Md.	Rosenblatt, John Jacob	N.Y.
Romett, Joseph Henry	Pa.	Rosenblum, David Joseph	
Rommel, Wilfred H.	D.C.	B.S. 1949, The George Washington University	N.Y.
B.S. 1937, North Dakota State School of Science		Rosenblum, Stephen Clyde	D.C.
Rood, George Henry	Fla.	Rosendorf, Betty R.	Md.
A.B. 1939, University of Florida		Rosendorf, Stanley Bernard	
Roof, Michael Kitching	D.C.	B.S. 1948, University of Maryland	D.C.
Rooney, William Albert	Wash.	Rosenshine, Shirley Ruth	D.C.
Roop, Doris Duvall	Md.	Rosenson, Leon Mendel	D.C.
Roos, Kinsey Henry	Ill.	Rosenson, Vivian Carmel	D.C.
Roosevelt, Diana	Mich.	Rosenthal, Alan Henry	D.C.
Root, Barbara Eno	Calif.	Rosenthal, Bernard	N.Y.
Roper, Mona Vee	D.C.	Rosenthal, Donald Currie	D.C.
Ropp, Wade Brown	Va.	Rosenthal, Elsie Jean	D.C.
Roque, Robert Marciano	Pa.	Rosenthal, Joseph	
Roque, Ruth Helen	Pa.	A.B. 1939, Brooklyn College	
Rorman, Harry Eugene	D.C.	A.M. 1940, Columbia University	D.C.
Rosada, Stefan	D.C.	Rosenthal, June Pamela	D.C.
LL.B. 1922, University of Poznan, Poland		Rosenthal, Melvin Stanley	
Rosakrans, Ruth Isabelle	D.C.	A.B. 1949, The George Washington University	D.C.
Rose, Alan Conrad	N.J.	Rosenthal, Myra Natalie	D.C.
B.S. 1944, A.B. 1947, Massachusetts Institute of Technology		Rosenthal, Saul	
Rose, Amel Edward	W.Va.	A.B. 1949, Catholic University of America	D.C.
Rose, Arthur E.	N.Y.	Rosenthal, Sidney	Va.
B.S.S. 1938, College of the City of New York		Rosenthal, Jacob Wolfe	
Rose, Carl Leon	D.C.	B.S.S. 1939, College of the City of New York	
Rose, Donald Lewis	Pa.	LL.B. 1942, Harvard University	Md.
B.S. in Ch.E. 1947, Pennsylvania State College		Rosewag, Nicholas Raymond, Jr.	Va.
Rose, Frank Louis	N.Y.	Rosin, Donald Everett	D.C.
Rose, Gareth Westbrook	Va.	Rosmanit, Elizabeth Nejedly	Mass.
A.B. 1944, University of Toronto		Ross, Alfred Sumner	D.C.
Rose Hal Thomas	Pa.	Ross, Bob	Va.
B.S. 1943, United States Military Academy		Ross, C. Hildegard	
Rose, Herbert Edgar	D.C.	B.S. 1933, State Teachers College, Farmville	Pa.
Rose, Jeanne	Md.	Ross, Daniel Michael	
A.B. 1933, College of William and Mary		A.B. 1946, A.M. 1948, The George Washington University	N.Y.
Rose, Ruth Butterworth	Va.	Ross, Gerald	D.C.
Rose, William George, Jr.	Md.	Ross, Helen Elizabeth	
Roseberry, Leroy Wallace	Va.	B.S. 1948, The George Washington University	D.C.
Roseman, Byron David	Mass.	Ross, Ian Kenneth	N.Y.
Rosen, David Selig	N.Y.	Ross, Irving Jerome	
Rosen, Herbert Harry	D.C.	A.B. 1948, Brooklyn College	Md.
Rosen, Libbey	D.C.	Ross, Joseph Hunter	Iowa
Rosen, Sam	D.C.	Ross, Keith Austin	D.C.
Rosenbaum, Gloria Josephine	Del.	Ross, Malcolm Kenneth, Jr.	D.C.
Rosenberg, Betty	D.C.	Ross, Marvin Stanley	D.C.
Rosenberg, Hyman Louis	D.C.	Ross, Nona Lee Taliaferro	D.C.
Rosenberg, Irwin Jack	D.C.	Ross, Ronald McKenzie	N.J.
Rosenberg, Max	D.C.	Ross, Ruth	
A.B. 1949, Hunter College		A.B. 1946, The George Washington University	D.C.
Rosenberg, Morris	D.C.	Ross, Samuel B.	
Rosenberg, Seymour Morton	N.Y.	A.B. 1921, University of Pittsburgh	
B.E.E. 1944, College of the City of New York		A.M. 1924, Ph.D. 1931, Columbia University	D.C.
Rosenberg, Solange	D.C.	Ross, William Hicks	D.C.
Rosenberg, Walter Saul	N.Y.	Rosse, Robert Morton	D.C.
Rosenberg, William Theodore	Ohio	Rossen, Jack Leopold	R.I.
Rosenberger, Gabriella L.	N.Y.	Rossi, Henry	
A.B. 1947, Brooklyn College		A.B. 1949, The George Washington University	Conn.
A.M. 1948, Columbia University		Rossi, Marian Elizabeth	
Rosenberger, Mary Jane	Va.		



Rossi, Peter Anthony, Jr. B.I.E. 1948, Syracuse University	N.Y.	Rowe, Willis Case A.B. 1949, The George Washington University	D.C.
Rossiter, Samuel Uriah A.B. 1947, Allegheny College	Pa.	Rowell, Russell	Va.
Rosson, Barbara Ruth	D.C.	Rowen, Thomas Howard	D.C.
Rothberg, Samuel B.	N.Y.	Rowitz, Bernard	N.J.
Rothenberg, Morris A.B. 1941, Cornell University	N.Y.	Rowles, Joan Eleanor A.B. 1948, Rutgers University	Iowa
Rothenhofer, David Austin B.S. 1949, University of Maryland	Md.	Rowlett, Gene Ellington A.B. 1948, Mary Washington College	Va.
Rothney, Florence Price M. in Ed. 1933, Harvard University	D.C.	Rowse, Katharine Louise	Fla.
Rothrock, John Allen, Jr. B.S. 1945, Northwestern University	Va.	Roxon, Daniel A.B. 1940, Brooklyn College	N.Y.
Rothrock, Roger Lee A.B. 1949, B.S. 1949, Indiana University	Ind.	Royce, Margaret Esther	D.C.
Rothstein, Nathaniel	N.Y.	Royer, Frederic Lee	D.C.
Rothwell, Naomi D. B.S. 1939, Cornell University	N.Y.	Roylance, Donald Carver	Md.
Rotkin, Irving Jacob B.S. in M.E. 1946, Virginia Polytechnic Institute	N.Y.	Rozansky, Beverly Ruth	D.C.
Rotnem, Eugene Orbeck A.B. 1947, University of Hawaii	Wis.	Rozek, Ann Mary	D.C.
A.M. 1949, The George Washington University		Rozo, Jorge Gómez	Colombia
Rotnem, Iris Mittelstadt	Wis.	Rozelle, Frederick Russell	Va.
Rotoli, Anthony Francis	N.Y.	Ruark, James Clay	D.C.
Rotundi, Louis John	D.C.	Ruben, Annette	D.C.
Roubideaux, Ramon Arthur	S.D.	Ruben, Louis Leonard	D.C.
Roudabush, Robert Mackey B.S. 1949, University of Maryland	D.C.	Ruben, Maurice B.S.C. 1930, Northwestern University	Ill.
Roughton, Aurelian Ernest, Jr.	Va.	Ruben, Max Samuel	W.Va.
Rouleau, James Petrie A.B. 1942, Catholic University of America	Md.	Rubenstein, Norman Hartley	D.C.
Roundtree, William Howard Rountree, Robert Manning	Fla.	Rubenstein, Ruth Sylvia	D.C.
A.B. 1948, Mercer University	Va.	Rubenstein, Sanford	N.Y.
Rousar, Edward Everett LL.B. 1949, The George Washington University	Va.	Rubenstein, Vida Ellen	D.C.
Rough, Lawrence Carmen	N.Y.	Rubin, Arnold Donald	N.Y.
Rousseau, Louis Chapman	D.C.	Rubin, Marvin A.B. 1949, The George Washington University	Md.
Rousseau, Marie	D.C.	Rubin, Norma	Va.
Routhenstein, Irene	Md.	Rubin, Sally Maxine	N.J.
Rovner, Louise Miriam B.S. 1934 Rutgers University	D.C.	Rubinstein, Irvin	Md.
Rovner, Sara	Pa.	Rubio, Carlos Enrique	Puerto Rico
Rowan, Edmund Charles B.S. 1944, United States Naval Academy	D.C.	Ruboy, Jordan Sumner	Mass.
Rowan, John Carey	Pa.	Ruckel, Neti Florence	W.Va.
Rowan, Leata Peer	Va.	Rucker, Jerry Carlton A.B. 1949, University of Virginia	Tenn.
Rowan, Michael Beatty	Va.	Rucker, Martha Cosby A.B. 1936, University of Richmond	Va.
Rowand, Roger Benjamin	Conn.	Ruczko, Joseph Anthony	Md.
Rowe, Florence Louise	Va.	Rudd, Vilva Elaine	D.C.
Rowe, Frank Joseph	N.J.	Rudden, Peter Vincent B.S. 1931, M.S. 1932, North Dakota Agricultural College	N.Y.
Rowe, George Frederick	Ill.	Ruddock, Harold Douglas	Calif.
Rowe, Jack James B.S. 1940, College of the City of New York	D.C.	Rudewick, William Kenneth B.S. in Ed. 1947, Pennsylvania State Teachers College, Millersville	D.C.
Rowe, Kathleen Wilson	D.C.	Ruditz, David A.B. 1949, The George Washington University	N.Y.
Rowe, Lionel Lewis B.S. 1921, United States Naval Academy	Va.	Rudman, Gerald Earl A.B. 1949, University of Maine	Maine
LL.B. 1930, The George Washington University		Rudolph, Flora	Ky.
Rowe, Shirley Case	D.C.	Rudy, Lester Eugene	D.C.
Rowe, William Dennison, Jr.	D.C.	Rudy, Robert Thomas	D.C.
		Rudykoff, Arthur Albert B.Ch.E. 1948, Polytechnic Institute of Brooklyn	N.Y.
		Rue, Audrey Hazel	D.C.
		Rue, Gloria Hope	D.C.
		Rueda, Richard, Jr.	N.J.
		Ruff, Bryson LaMar	Pa.
		Rugen, Barbara Dorsch A.B. 1942, College of Wooster	D.C.
		Rugen, Paul Robert B.S. in Ed. 1949, Rutgers University	N.Y.



Ruggles, Jane	Pa.	Ruths, Carl Joseph	P.D.
A.B. 1943, University of North Carolina		Rutledge, Jean Ann	
Ruiz, Amelia Mary	D.C.	A.B. 1947, Indiana University	Va.
Ruiz, Eva	D.C.	Rutledge, John	Va.
Rulien, Frank Raymond	Ill.	Rutledge, Robert Clinton	
Rullman, Anne Harris	Va.	A.B. 1940, University of Virginia	Md.
Rumbough, Patricia Kings	Va.	Rutler, Jack Lee	D.C.
Rumbough, William Samuel	Va.	Ruttkaev, Eva Maria	D.C.
B.S. in E.E. 1927, A.M. in Ed. 1946, The George Washington University		Ruyter, John Martin	N.Y.
Rumford, Donald Chester	Va.	Ryan, Burton Thomas	Pa.
Rumley, Lucy Johnston	D.C.	Ryan, Charles Patrick	D.C.
Runge, Deane	N.Y.	Ryan, Dorothy Eloise	Mass.
Runkle, Denton William	Va.	Ryan, Dorothy Shannon	Kans.
Runkle, Irvin Lester	Ohio	Ryan, Edward Francis	Pa.
A.B. 1948, Muskingum College		Ryan, Edward Joseph	R.I.
Runnion, Barbara Diane	Md.	Ryan, Edward Thomas, Jr.	Pa.
Runyan, Robert Laymon	Md.	Ryan, Jack Thomas	Vt.
B.S. 1930, College of Wooster		Ryan, James Anthony	
A.M. 1949, The George Washington University		B.S. 1940, College of the Holy Cross	
Rupert, Jack Burns	Va.	LL.B. 1947, Cornell University	N.Y.
Rupert, Mary Martha	Ga.	Ryan, James Joseph	N.Y.
Rupp, Norman Paul	Iowa	Ryan, John Aloysius	D.C.
Ruppeldt, Ruth	Va.	Ryan, John Clifford	
Rushing, Betty Jo	Tenn.	A.B. 1947, Iona College	Md.
Rusk, Betty	Wis.	Ryan, John Powell	W.Va.
Russ, Cecil Martin	Md.	Ryan, John Thomas	
Russ, Wilbur Joseph	Calif.	A.B. 1948, West Virginia University	N.Y.
A.B. 1950, University of California		Ryan, Rita Marie	Pa.
Russell, Anne Carter	Va.	Ryan, Robert Edwin	D.C.
Russell, Betty Lucile	D.C.	Ryan, Robert Emmet	Mass.
Russell, Conrad Norman	Md.	B.S. 1947, Temple University	
Russell, DeAlton	Calif.	Ryan, William Edward	
Russell, Denver Lee	Ohio	B.S. 1943, B.S. in E.E. 1945, University of Michigan	Wis.
A.B. 1947, Mount Union College		Rybak, Alice Mary	
Russell, Helen Louise	D.C.	B.S. 1945, M.S. 1948, University of Wisconsin	Okla.
Russell, James Miller	D.C.	Ryder, Dorothea Jeanne	D.C.
Russell, Kenneth Monroe	Oreg.	Ryder, Elizabeth Margery	N.Y.
Russell, Kit Carson	Va.	Ryder, James Andrew	Conn.
Russell, Melvin Lewis	Kans.	Ryder, Robert Burton	Mass.
Russell, Phyllis June	D.C.	Rydholm, William Norman	D.C.
Russell, Robert Raymond	D.C.	Rykhous, Douglas Joseph	Md.
B.S. 1939, United States Coast Guard Academy		Rymer, Joseph Rives	
Russel, Ronald Lee	W.Va.	Rymer, Thomas Arrington	Md.
Russell, Stanton Best	D.C.	B.C.E. 1948, Cornell University	
B.M.E. 1949, The George Washington University		Rynders, Gerald Francis	
Russell, Thomas Hale	Va.	B.S. Ceramic Eng. 1943, Alfred University	D.C.
A.B. 1940, Harvard University		Ryon, Joseph William	
Russell, William Augustine, Jr.	Va.		
Russell, William David	Mo.		
A.B., LL.B. 1938, University of Missouri			
Russell, William Fred	Md.		
Russler, William	N.Y.		
B.S. 1942, College of the City of New York			
Russo, Frank Nicholas	Md.		
B.S. 1939, Boston University			
Ruszkiewicz, Joseph Edward	Pa.		
B.S. in E.E. 1948, University of Pittsburgh			
Rutherford, Martha Skillman	Pa.		
A.B. 1948, Wellesley College			
Rutherford, Reginald	Va.		
B.S. 1934, United States Naval Academy			
Rutherford, Samuel James	Pa.		
B.S. 1948, Lebanon Valley College			
		Saba, Michael	Pa.
		Sabatine, Paul Leopold	Pa.
		Sabatini, Edmund John	N.Y.
		Sabella, Richard, Jr.	D.C.
		Sabine, Edward Bliss	D.C.
		Sabine, Gardner Blake	Md.
		A.B. 1949, Harvard University	
		Sabot, Allen	N.Y.
		Saccardi, Clarence Richard	D.C.
		Saccoccia, Dorothy Ann	R.I.
		Sachs, Allen Harold	N.Y.
		Sachs, Theodore	Va.
		A.B. 1934, Brooklyn College	
		A.M. 1939, Columbia University	Ga.
		Sack, Edward Emanuel	
		B.S. in Ae.E. 1936, Georgia Institute of Technology	
		M.B.A. 1949, Harvard University	D.C.
		Sackman, Robert	



Sacks, Jacob Milton	D.C.	Salzberg, Ruth	D.C.
Sacks, Lester Leslie	N.Y.	Salzer, Joseph	Md.
Sadek, Amina	Egypt	Samaha, Leslie Halim	D.C.
Sadler, Emmett Garner	D.C.	Samakow, Beverly Retha	D.C.
Sadowski, Larry Valery	Mich.	Samban, Raquel	D.C.
Sadowsky, Gersten	N.Y.	Sames, Mary Ann	Mo.
B.M.E., 1947, College of the City of New York		A.B., 1947, University of Missouri	Pa.
Sadur, Hillard Erwin	Md.	Samolsky, Myles Stanford	
Sadur, Marvin Phillip	D.C.	A.B., 1949, Washington and Jefferson College	
A.B., 1947, The George Washington University		Samonek, Edna Jean	Ohio
Sadusky, Alfred A.	Pa.	A.B., 1949, Stanford University	
A.M., 1940, Columbia University		Samowitz, Charles Sidney	D.C.
Saffel, Louise Lillard	Va.	B.M.E., 1948, College of the City of New York	
B.S., 1936, Mississippi State College for Women		Samples, Ramona	Va.
Saffitz, Abraham Alan	N.Y.	Sampson, Courtney Howard	D.C.
A.B., 1936, Cornell University		Samson, Chester Page	Okla.
Sager, Gene Gustav	D.C.	Samson, Vernon Harold	Neb.
Sager, John Harmer	D.C.	Samuels, Joseph Paul	W.Va.
A.B., 1947, Princeton University		B.S., 1946, West Virginia University	
Sager, Oscar S.	Conn.	Samuelson, Frederick Clarence	Ill.
A.B., 1940, New York University		Samuelson, Kenneth Robert	Ill.
Sager, Stanley Melvin	D.C.	Sanborn, Robert Lewis	Md.
A.B., 1949, Duke University		Sanchez, Ben P.	N.M.
Saggese, Thelma Yates	D.C.	Sanchez, Burdette Boardman	Pa.
Ed.B., 1940, Danbury State Teachers College		Sanchez, Gloria Marie	D.C.
Saginor, Irving	N.Y.	Sanchez, Patricia H.	Va.
Sagle, Robert Franklin	Md.	Sanchez, Zulma Maria	Puerto Rico
Sagner, Charles Edward, Jr.	D.C.	Sand, David	Tenn.
A.B., 1947, University of California		B.S., 1949, East Tennessee State College	
Sahaj, Joseph Al	Md.	Sandeen, Charles Edward	Va.
Sahn, Henry Spencer	Md.	Sander, Dora	D.C.
B.S., 1931, Lehigh University		A.B., 1942, Radcliffe College	
Sailer, Jessie Bradbury	Va.	Sanders, Bertram Webb	Ind.
A.B., 1939, A.M., 1940, University of Kansas		A.B., 1949, Earlham College	
St. Clair, John Gilbert	Va.	Sanders, Donald Earl	Va.
St. George, Erma Hoover	D.C.	Sanders, Frank Powell	N.C.
St. John, Charles Richard	Ohio	Sanders, George Clay	Va.
A.B., 1948, University of Akron		Sanders, John Albert	Pa.
St. John, Jack Visscher	Md.	A.B., 1948, The George Washington University	
St. Thomas, Dorothy Laird	D.C.	Sanders, Kendall Earle, Jr.	Va.
Sakai, Hiroshi	Hawaii	Sanders, Lee Steele	D.C.
Salazar, Henry Joseph	Md.	Sanders, Leslie Elwood	D.C.
Saldarriaga, Ilija	D.C.	A.B., 1949, Franklin College of Indiana	
Sales, Joseph Mitchell	Va.	Sanders, Ralph Byran	Md.
B.S., 1943, Oklahoma Agricultural and Mechanical College		Sanders, Robert Alexander	Va.
Salica, Yolanda Theresa	N.Y.	B.S., 1937, Cumberland University	
A.B., 1949, Marymount College		B.S., 1939, California Institute of Technology	
Salisbury, Donald	Va.	Sanders, William Gerard	Va.
Salkowski, Albert Stephen	Md.	Sandiford, George William	D.C.
Salladay, David Eugene	D.C.	Sandler, Henry Morton	Pa.
Sallas, Gustav Adolph	D.C.	Sandmeyer, Melvin Wesley, Jr.	D.C.
Salmon, Albert James	D.C.	Sands, Courtland William	D.C.
Salmon, Ralph Franklin	Pa.	Sands, Lillie Petersen	Va.
Salokas, Adele Bernadette	Pa.	Sands, Margot Kincaid	D.C.
Salter, Elliot Arnold	R.I.	A.B., 1948, Mount Holyoke College	
B.S., 1945, Brown University		Sandwich, Luther Martin, Jr.	D.C.
Salter, Lucille Fay	Va.	Sandwich, Marilyn Jane	D.C.
Salz, Ethel Jean	Md.	Sanford, Edith Smith	Va.
Salzgraver, Lester Duane	Md.	B.S., 1945, State Teachers College, Farmville	
A.B., 1949, Western Maryland College		Sanford, Elizabeth Koontz	Mass.
Salvati, Saverio Ralph	D.C.	A.B., 1933, Wellesley College	
Salvato, Ben Francis	Tex.	B.S.E., 1935, Massachusetts State Teachers College, Framingham	
B.S., 1948, University of Texas		Sanger, Raymond Frederick	Va.
Salzberg, Calvin David	N.Y.	B.S., in Ed., 1940, Pennsylvania State Teachers College, Bloomsburg	
B.E.E., 1949, The George Washington University			
Salzberg, Lorraine Muriel	N.Y.		



Sanshuk, Daniel	Md.	Saylor, Mary Louise	Ill.
B.S. 1946, M.S. 1947, Ohio State University		B.S. 1936, University of Illinois	D.C.
Sansum, Lavane Earl	R.I.	Saylor, Henry Clay	Pa.
A.B. 1947, University of California		B.S. 1949, University of Maryland	
Santambrogio, Gloria Joan	D.C.	Saylor, James Burton	D.C.
Sappenfield, Keith Mynes	Ind.	A.B. 1949, The George Washington University	Oreg.
Sarasohn, Vida	Va.	Saylor, James Willis	N.Y.
B.S. 1949, Colleges of the Seneca	D.C.	Sayre, Robert Marion	Va.
Sargent, Joseph	D.C.	A.B. 1949, Willamette University	D.C.
Sariego, Audie	D.C.	Scaffidi, Alfred	Va.
Sarkipato, Ida Marie	Va.	Scaife, William McCaslan, Jr.	D.C.
Sarkisian, Leo	Va.	Scalco, Nicolo Vincent	Va.
Sarle, Charles Richard	D.C.	Scalise, Frances Mary	La.
Sarosi, Oliver		Scanlan, Sidney Joseph	Md.
B.C.S. 1929, New York University		Scanlan, Thomas Russel	
Ph.D. 1936, Royal Hungarian University		A.B. 1949, The George Washington University	N.Y.
Sarris, Louis George	W.Va.	Scanlon, John Edward	Miss.
A.B. 1949, West Virginia University		Scarborough, James K.	
Sartor, John Douglas, Jr.	S.C.	A.B. 1949, The George Washington University	Va.
Sartor, Mary Carruth	Calif.	Scarritt, Ralph	Va.
Sasaki, Robert Takashi	N.J.	A.B. 1941, Denison University	Va.
Saslaw, David	Pa.	Scharrow, William Arthur	Va.
Sass, Tauba H.		Scaviot, Angelo John	
A.B. 1944, A.M. 1947, University of Pennsylvania	Hawaii	A.B. 1948, The George Washington University	N.J.
Sato, Edward Hifumi	N.Y.	Schachel, Norman Herman	D.C.
Satten, Bernard Abraham	D.C.	Schaefer, Vivian Rochester	D.C.
Sauber, Frank	Ill.	Schaefer, William John	D.C.
Sauer, Elizabeth	Md.	A.B. 1949, University of Pittsburgh	D.C.
Sauer, Ruth Gladys		Schafer, Elizabeth Rosalie	D.C.
B.F.A. 1948, Ohio University	N.Y.	Schafer, Frederick	
Saul, Howell Jay	D.C.	B.S. 1925, The George Washington University	
Saul, Norma Helen	Ga.	LL.B. 1928, Georgetown University	D.C.
Sauls, John Clinton	D.C.	Schafer, Robert David	D.C.
Saunders, Charles Turner	Va.	Schalau, Robert Duane	D.C.
Saunders, George Everett	D.C.	Schankel, Norman George, Jr.	D.C.
Saunders, George William		Schantz, Wilmer Shelly	D.C.
B.S. 1948, Wilson Teachers College	D.C.	Schapiro, Oscar Milton	Va.
Saunders, Mariellen	Va.	Schappert, Joseph Matthew	N.Y.
Saunders, Mildred Lee	D.C.	A.B. 1948, Queens College, N.Y.	
Saunders, Nancy Nell	Va.	Schattner, Theodore Jacob	
Saunders, Patricia Anne	Va.	B.B.A. 1941, College of the City of New York	Va.
Saunders, Sidney	N.J.	Schatz, Arlene A.	N.Y.
Sause, Edward Francis	Va.	Schatz, Bernard	Pa.
B.S. 1949, Georgetown University	Ga.	Schatz, Elizabeth Jayne	Va.
Sauveur, Anita Belle		Schatz, Louis	D.C.
Savage, Carl Preston, Jr.	Tenn.	Schatzman, Joan Harolyn	N.Y.
A.B. 1948, University of Georgia		Schatzow, Arthur	Md.
Savage, Howard Lane, Jr.	D.C.	B.S. 1943, New York University	Mo.
A.B. 1948, Vanderbilt University	N.J.	Schaub, William Clark	D.C.
Savage, Julian	D.C.	Schaum, Amy Helene	Md.
Savage, Walter Benedict	N.J.	Schechter, Israel	D.C.
Savarese, Charles Joseph, Jr.	D.C.	Scheckel, William Howard	
A.B. 1941, University of North Carolina	S.C.	Schecter, Roger M.	D.C.
Saverance, Carolyn McNair		A.B. 1947, Dickinson College	Va.
A.B. 1940, Winthrop College	Md.	Scheel, Nicholas Tyler	D.C.
Saville, John William	N.C.	Scheerer, Carl Russell	
Sawyer, Francis David	Ohio	Scheibel, Kenneth Maynard	
Sawyer, John William		A.B. 1947, A.M. 1949, University of Virginia	D.C.
B.S. in E.E. 1933, University of North Carolina	S.C.	Scheinman, Philip Henry	D.C.
B.S. in M.E. 1938, Ohio State University	D.C.	Scheinine, Leon	D.C.
Sawyer, Mary Ann	Md.	Schelberg, William Vincent	
Sawyer, Patricia Frances	Va.	B.S. in E.E. 1935, University of Louisville	
Saxe, Charles Lee, Jr.	Ohio		
Saxe, Lillian Mitchell	N.Y.		
Saxon, George Edward			
Sayers, William Walter			



Schell, Emil D. A.B. 1935, Hiram College A.M. 1941, Western Reserve University		Schmidt, Arthur Walter B.S. 1948, Webb Institute of Naval Architecture	N.Y.
Schellenberg, Paul Herbert	Va.	Schmidt, Charles	Va.
Schellinger, Marjorie	N.Y.	Schmidt, Christian Joseph B.S. 1947, Rutgers University	Va.
Schelsnes, Ole Christen B.E. 1940, Wisconsin State Teachers College, Stevens Point	D.C.	Schmidt, Donald Gerry B.S. 1942, University of Washington	Mont.
Scheltema, Johannes Lorenzo	Md.	Schmidt, Dorothy Augusta	Md.
Scheltema, Rudolf Seigfried	Md.	Schmidt, Richard Frederick	D.C.
Scheltema, Walter Roland	Md.	Schmidt, Sheldon Severin	D.C.
Schenck, Barbara	Mo.	A.B. 1941, University of Wisconsin	
Schenck, Joseph Samuel	N.C.	Schmidt, William Edward	Md.
Scherback, William John B.S. in E.E. 1946, University of Wisconsin	N.J.	B.S. 1943, The George Washington University	
Scherer, John	Va.	Schmidt, William Francis A.B. 1949, The George Washington University	N.Y.
Scherer, John Jacob III	Va.	Schmidt, William Sheppard	Md.
Scherff, Roger Alan	D.C.	A.B. 1929, Franklin and Marshall College	
Schermerhorn, Lloyd Andrew A.B. 1931, University of Rochester A.M. 1937, Clark University	D.C.	A.M. 1936, Columbia University	
Scheuch, Walter Daniel, Jr. B.S. 1948, University of Maryland	Md.	Schmier, Hilda Frieda	Md.
Schiattareggia, Hugo Angelo	D.C.	Schmitt, George Christopher	Neb.
Schick, Irvin Henry	Pa.	Schmitt, Page Martson	Md.
Schiedel, Robert William B.S. 1949, University of Maryland	Md.	B.M.E. 1949, The George Washington University	
Schiff, Irwin B.M.E. 1949, New York University	N.Y.	Schmitt, Samuel Arthur B.S. 1947, University of Chicago	Ill.
Schiffman, Harold	Mass.	Schmitz, Carl Leo	Va.
Schifter, William	N.Y.	Schnapp, Carl Bernard	N.Y.
Schikevitz, Norman Galt	D.C.	Schneiberg, Rosalyn A.B. 1949, The George Washington University	D.C.
Schiller, Alvin	Va.	Schneible, Helen Mary B.S. 1929, Syracuse University	N.Y.
Schiller, David Mulford B.S. in E.E. 1948, Carnegie Institute of Technology	Pa.	Schneider, David Taylor A.B. 1947, Yale University	Mass.
Schimmel, Ruth Sonia B.S. 1947, University of Richmond	Md.	Schneider, Edwin Roy A.B. 1948, University of Michigan	Mich.
Schindler, Walter Gabriel B.S. 1921, United States Naval Academy	D.C.	Schneider, Ella Kathryn A.B. 1949, The George Washington University	Colo.
Schindler, William Rhyner	Wis.	Schneider, Joan Kathryn	D.C.
Schink, Harry Charles B.S. in Ch.E. 1942, Carnegie Institute of Technology	Md.	Schneider, Louis	N.Y.
Schirmer, Edward Henry	Va.	Schneider, Thomas Frank	D.C.
Schkolnick, Herman	D.C.	Schneider, Walter Henry B.S. 1943, Virginia Polytechnic Institute	N.J.
Schkolnick, Leon Joseph	D.C.	Schneider, William	N.Y.
Schlech, Walter Frederick B.S. 1936, United States Naval Academy	N.J.	Schneiders, Joseph Matthew	D.C.
Schleeper, Gerald George	Ill.	Schnell, William Cardigan A.B. 1949, The George Washington University	Pa.
Schleifman, Morris	N.Y.	Schnettler, Catherine Regina	D.C.
Schleimeier, Nancy Early	D.C.	Schnitman, Edward Perry A.B. 1938, The George Washington University	D.C.
Schleimeier, Todd Edward	D.C.	A.M. 1948, Yale University	
Schlemmer, Roy Ramon, Jr.	D.C.	Schnitzer, Shirley Lois	Md.
Schlesinger, Daniel	N.Y.	Schnurr, Martin Kenneth	Mich.
Schlesinger, Jean	D.C.	Schocket, Charles Lewis	N.J.
Schletter, Martin Sheldon	N.J.	Schoem, David	N.J.
Schleusener, Willis John	N.J.	Schoen, Robert Joseph	Va.
Schlup, Lester Alexander Jr. Schmaltz, Robert Edward B.S. 1948, Lehigh University	Neb.	Schoen, Stephen Michael A.B. 1943, Harvard University A.M. 1947, University of Maryland	D.C.
Schmalzer, Henry Walter B.S. 1947, Lebanon Valley College	D.C.	Schoeneman, Robert Lee B.S. 1947, M.S. 1949, The George Washington University	D.C.
Schnertz, Robert Colgan, Jr. B.S. in E.E. 1943, Princeton University	Pa.	Schoenfeld, John Short Reid A.B. 1949, Washington and Lee University	D.C.
Schmid, Paul Emil, Jr.	D.C.		



Schofield, Herbert Mellor	Conn.	Schultz, John Hooker	Md.
Schofield, Jack Hughey	W.Va.	LL.B. 1949, The George Washington University	Md.
Schofield, James Hamlin	Ill.	Schultz, Paul Gibbons	
B.S. 1943, United States Military Academy	N.C.	B.S. 1938, United States Naval Academy	
Scholl, George Stephens		M.S. 1943, Massachusetts Institute of Technology	D.C.
B.S. 1948, University of North Carolina	Md.	Schultz, Theodore Arthur	Pa.
Scholtz, Edward Karl	Md.	B.S. 1948, Capital University	D.C.
Schommer, Richard Bennett	Md.	Schultz, William Harrison	D.C.
Schonberg, David		Schulz, William Hochstein	N.Y.
B.S. 1940, Brooklyn College	Va.	Schuman, Joseph Morton	Pa.
Schonberger, Eugene	Va.	Schumann, John Charles	D.C.
Schoolcraft, Donna Marie	W.Va.	Schuppin, Eric Adolph	D.C.
Schoolfield, Nellie Louise	Md.	Schuppin, Louis Albert	D.C.
Schoonmaker, Eugene Vrooman	Va.	Schurter, Maxine Ann	
Schoonover, Jobe Edward	Va.	A.B. 1944, Pomona College	D.C.
Schraitle, Arthur William	D.C.	Schussler, John D.	
Schram, Dorothy Jean	Mich.	B.S. 1930, Gettysburg College	Va.
Schreiber, Sam Michael	D.C.	Schuyler, Shirley	D.C.
Schreibman, Vigdon	N.J.	Schuyler, William Joseph	
Schreiner, Margaret Abramitis	D.C.	A.B. 1946, Trinity College, Conn.	Va.
Schrenk, William J.		Schwaderer, George Jacob	Md.
B.S. 1943, Case Institute of Technology	D.C.	Schwarm, James Stark, Jr.	Iowa
Schreyer, Charles Henry	N.Y.	Schwarting, Wilford Rudolf	D.C.
Schreyer, Stafford David		Schwartz, Bella	
B.E.E. 1948, Polytechnic Institute of Brooklyn	N.Y.	A.B. 1944, The George Washington University	D.C.
Schrier, C. Esther	D.C.	Schwartz, Della K.	D.C.
Schrier, Edward		Schwartz, Harryette	D.C.
B.S. 1949, University of Maryland	Va.	Schwartz, Helen Janet	
Schroder, Donald Eliot	D.C.	A.B. 1948, The George Washington University	D.C.
Schroeder, Andrew Jackson	Pa.	Schwartz, Herbert	N.Y.
Schroeder, Frederick John, Jr.		Schwartz, Julius Louis	
B.S. 1938, United States Naval Academy		A.B. 1947, New York University	Md.
M.B.A. 1949, Harvard University	Nebr.	Schwartz, Marjorie	N.Y.
Schroeder, Le Moyne Allen	Wis.	Schwartz, Milton Allan	
Schroeder, Leo William	D.C.	B.S. 1938, College of the City of New York	N.J.
Schroeder, Margaret Flynn	D.C.	Schwartz, Norman	D.C.
Schroer, Marjorie Ann	Md.	Schwartz, Robert Charles	Md.
Schrumpf, Jeanne Marie		Schwartz, Simon	D.C.
B.S. 1947, Pennsylvania State College	Mont.	Schwartz, Stuart Irwin	D.C.
Schrupp, Dana Orlando		Schwartzbach, Saul Marvin	
B.S. 1948, Montana State College	Kans.	A.B. 1949, The George Washington University	D.C.
Schubert, Coralie Williams		Schwartzman, Marcel	Va.
A.B. 1915, Baker University		Schwarz, Albert Paul	Md.
A.M. in Ed. 1945, The George Washington University	D.C.	Schwarz, Frederick Charles	Md.
Schuetzler, Rudolph George	D.C.	Schwarz, Harry Emanuel	Va.
Schuirman, William Carter		Schweiger, Irving	
A.B. 1940, Pomona College	Va.	A.B. 1939, College of the City of New York	Va.
Schuler, Harland Aaron		Schweiger, Raye Rosenheck	N.Y.
B.S. 1948, Georgetown University	Va.	Schweiger, Raymond Morris	Ill.
Schulke, Ruth Dillon		Schweisthal, Robert John	
A.B. 1931, University of North Carolina	D.C.	B.S. 1948, Loyola College	D.C.
Schulman, Abe	D.C.	Schweitz, Edwin Paul	Va.
Schulman, Albert Avrum	D.C.	Schweser, Alfred Joseph	Va.
A.B. 1940, A.M. 1949, University of Chicago	D.C.	Schwichtenberg, Alan Edward	D.C.
Schulman, Delores Hilda	Va.	Schwichtenberg, Anna Lou	W.Va.
Schulman, Sidney		Schwie, Orville Roy	
A.B. 1940, College of the City of New York	D.C.	Schwing, Mack Eugene, Jr.	D.C.
Schulten, Carl Lang	Va.	A.B. 1948, West Virginia University	D.C.
Schulteis, Elizabeth Lowe		Sciscent, Valerie Germaine	D.C.
B.L. Arch. 1923, Cornell University	D.C.	Scithers, Ruth McKelway	Va.
Schultz, Dorothy Jones		Sciullo, Elena Patricia	D.C.
B.S. 1936, University of Maryland	N.Y.	Scoffone, August U.	
Schultz, Herman David		Scoggin, Ellen Cooney	



Scoggins, Charles Robert	Md.	Sebastian, Robert, Jr.	N.Y.
A.B. 1948, University of Maryland		Sebastian, Virginia Jean	Conn.
Scollon, Kenneth Martz	D.C.	Seborer, Miriam Zeitlin	D.C.
Scopellite, Frank	N.Y.	A.B. 1939, Hunter College	
Scopi, Rosemary Patricia	D.C.	A.M. 1940, Columbia University	
Scott, Albert Peter	Va.	Seckinger, Daniel Lemont, Jr.	D.C.
Scott, Alice Dorothy	N.Y.	Seckler, Sam	Md.
Scott, Daisy Loretta	W.Va.	B.M.E. 1941, College of the City	
Scott, Dorothy Belle	Pa.	of New York	
Scott, Folsom Miko	Okla.	Secrest, Edgar Lee, Jr.	Tex.
Scott, Frederick Lewis, Jr.	D.C.	B.S.C. 1941, University of Georgia	
B.S. 1949, Pennsylvania State		Secula, John David	Md.
Teachers College, West Chester		Seddig, Mohammed	D.C.
Scott, George Edward	D.C.	Sedlacek, Emanuel Joseph	Md.
Scott, Gerald Leroi	Md.	A.B. 1949, The George Washington	
Scott, Grace Davis	W.Va.	University	
A.B. 1939, Glenville State College		Sedmak, Michael Edward	Pa.
A.M. 1945, Columbia University		A.B. 1949, Muhlenberg College	
Scott, Harold Everett	Va.	Seebold, Robert Elvin	D.C.
Scott, Howard Greer	Ill.	Seeds, Henry	D.C.
Scott, James Davis	Pa.	Seeger, Edward Gustave	Va.
A.B. 1947, Princeton University		Ph.B. 1942, University of Wisconsin	
Scott, James Jackson III	Va.	Seegrist, Donald Wayne	Va.
Scott, Joseph Lee	Ky.	Seehusen, Robert Frank	D.C.
Scott, Joseph Raymond, Jr.	Va.	Seeliger, Doris Lanell	Tex.
Scott, Lois Collins	D.C.	Sefton, Robert Dorsey	Va.
A.B. 1924, Duke University		Segal, Nina	D.C.
Scott, Loretta Eastman	Va.	Segal, Rena Breenblatt	D.C.
A.B. 1948, The George Washington		Seganish, William Emory	D.C.
University		A.B. 1943, Wilson Teachers College	
Scott, Owen Woody	Va.	Segars, John Clarence	Fla.
Scott, Richard Gordon	D.C.	Segaul, Arthur Irving	N.Y.
Scott, Russell Bert	Pa.	Seibold, John Paul	D.C.
Scott, Walter Conrad	D.C.	Seidel, Arthur Harris	N.Y.
Scott, Walter Robert	D.C.	B.S. 1942, College of the City of	
B.S. 1941, Pennsylvania State		New York	
Teachers College, West Chester		A.M. 1943, University of Michigan	
A.M. 1948, Temple University		Seidel, Robert Joseph	Va.
Scott, Walter Theodore	Mass.	Seiden, Herbert Robert	N.Y.
Scott, Wilbur Newton	D.C.	Seidenberg, Doris Louise	D.C.
A.B. 1942, West Liberty State College		Seidman, Milton	D.C.
Scrivener, James Milton	Va.	B.S. 1938, Johns Hopkins University	
Scruggs, Claude Greene	W.Va.	M.S. 1949, The George Washington	
A.B. 1949, The George Washington		University	
University		Sein, Maria Eugenia	D.C.
Scruggs, William Joseph	D.C.	A.B. 1934, Wellesley College	
Scull, Paul Arthur	D.C.	Seiple, Stanley Herkimer	Conn.
Seabrooke, William Harvey, Jr.	D.C.	A.B. 1949, University of Connecticut	
Seadler, Stephen Edward	N.Y.	Seitz, Ellamae Elizabeth	Pa.
A.B. 1947, Columbia University		Seiwell, William James	D.C.
Seal, Barbara Stewart	D.C.	Sekas, Nick John	D.C.
Seal, Frank Walker	Md.	Sekimura, Suco Robert	Hawaii
Seal, Morgan Swaim	D.C.	Sekuler, Stanley Harold	D.C.
B.S. 1949, The George Washington		Selbee, Ruth June	Va.
University		Selbee, Thomas McClure	Va.
Seale, John Arthur	Tex.	Selbin, Joel	D.C.
A.B. 1943, The George Washington		Seleen, Mary Ellen	Va.
University		Seley, Florence Leiken	Conn.
Sealock, Robert Winfield	Va.	Seligman, Ellen	D.C.
Seaman, Leslie Thomas	N.Y.	Selkowitz, Lawrence Emanuel	Md.
Seagust, Ruth Ellen	D.C.	Sellers, Campbell Carrington	Va.
Search, Cecile Flanke	D.C.	Sellers, Lucy Mariah	D.C.
Search, Harry Edwin	Pa.	Sellers, Patricia Anne	Pa.
Searle, Della L.	D.C.	Sells, Clara Louise	Fla.
Searle, Marvin Stuart	Va.	Selsky, Abe	D.C.
Sears, Charles William	Md.	Seltzer, Orie	D.C.
Sears, Earle Vincent	D.C.	Semkew, George Edward	Pa.
Sears, Lillian Floyd	Tex.	Semons, Joan Frances	Md.
Sear, Charles Fillmore	Va.	Semple, Malcolm McEwen	Fla.
Seay, Elise	Va.	B.S. 1940, American University	
A.B. 1938, Agnes Scott College		Senchyna, Thomas Joseph	N.Y.
Seay, Ralph Matthew	Va.	Scendiviver, John Frederick	Va.
Sebastian, Elsie	Conn.	A.B. 1948, Bridgewater College	



Sendejo, Serapio L.	Tex.	Shannon, John Elmer, Jr.	Pa.
Senft, Frank Joseph	Md.	B.S. 1948, Philadelphia College of	Pa.
Senft, Oscar Leo	D.C.	Pharmacy and Science	Pa.
A.B. 1948, The George Washington		Shannon, Joseph James	Mass.
University		Shannon, Taimi Helena	Md.
Senft, Otto Ernest	Iowa	Shapilo, John Joseph	
A.B. 1943, Wartburg College		B.S. 1949, The George Washington	
B.D. Wartburg Theological Seminary		University	D.C.
Sengpiel, William Robert	Ill.	Shapiro, Alvin Nelsoa	
B.S. 1949, Wheaton College		B.S. 1949, Drexel Institute of	
Sengstack, George Fleming	D.C.	Technology	D.C.
Senn, Homer Alexander	N.Y.	Shapiro, Annette Rena	D.C.
Sennello, Francis George, Jr.	N.Y.	Shapiro, Barbara Lee	D.C.
Sepe, Emma	N.Y.	Shapiro, Cynthia Ellen	N.Y.
Sera, Frederick	Md.	Shapiro, Daniel Murry	
Sergeant, Audrey Lou	D.C.	A.B. 1948, The George Washington	
Sergeant, Russell Lewis	D.C.	University	N.Y.
Serikawa, Fumio	Hawaii	Shapiro, David	N.Y.
B.S. 1948, University of Hawaii		Shapiro, Goodwin	D.C.
Servais, Raymond Alois	Wis.	Shapiro, Gustave	D.C.
Servidio, Salvatore	Va.	Shapiro, Harry Alan	D.C.
Sestokas, John Michael	Pa.	Shapiro, Irving	N.Y.
Settle, Thomas Greenhow William	D.C.	Shapiro, Laura Leib	Md.
B.S. 1918, United States Naval		Shapiro, Louise	D.C.
Academy		Shapiro, Maurice	N.Y.
M.S. 1924, Harvard University		Shapiro, Max	D.C.
Severe, Doris Wilmar	Md.	Shapiro, Nelson Hirsh	
Severe, Everette	Md.	B.E.E. 1948, Johns Hopkins University	D.C.
Severin, Marilyn June	D.C.	Shapiro, Paul	N.Y.
Sevier, James Henry	D.C.	Shapiro, Phyllis Rhoda	D.C.
A.B. 1923, Howard Payne College		Shapiro, Sandra Ruth	D.C.
Seward, Morton W.	Ill.	Shapiro, Stanley	Va.
A.B. 1949, The George Washington		Shapley, Charles Leland	D.C.
University		Shapley, Ellen	Pa.
Sexauer, Henry Frederick	Md.	Sharkey, James Francis	Pa.
Sexton, John Montgomery	Conn.	Sharkey, Rosemary Elizabeth	Mass.
Seybert, Harry David	D.C.	Sharp, Daniel DeWitt	
Seymour, John Aloysius	Md.	B.S. in E.E. 1939, Northeastern	
Shackleford, Covington	D.C.	University	Va.
Shackner, Arthur Arden	N.Y.	Sharp, Madeleine Holt	
Shaddix, William Newton	N.Y.	B.S. 1929, University of Illinois	Va.
Shade, Casper Henry	Pa.	Sharp, Venda Venell	Pa.
Shade, James Russell, Jr.	Va.	Sharpe, Henry Arnold	Md.
B.S. in Ed. 1940, Pennsylvania State		Sharpe, William Charles, Jr.	D.C.
Teachers College, Millersville		Sharples, Ruby Strickland	N.Y.
Shade, Lavern Paul	Md.	Shattuck, James Wilbur	Mass.
Shafer, Alice Janet	Iowa	Shattuck, Phyllis Eleanor	
Shafer, Fred James	Mo.	B.S. 1939, Simmons College	Va.
Shafer, Ralph Maurice	D.C.	Shaw, Andre Marie Pontonnier	Pa.
Shaffer, Earl Edward	W.Va.	Shaw, Christopher Campbell	
Shah, Kantilal Tokershi	D.C.	Ph.B. 1924, Yale University	
B.S. 1949, George Peabody College		M.D. 1931, University of Maryland	D.C.
for Teachers		Shaw, Constance Eleanor	
Shakeri, Farrukh Sayer	India	A.B. 1949, Duke University	Md.
Shaller, Herman I.	N.Y.	Shaw, Daryl Winston	
A.B. 1941, Brooklyn College		B.S. 1931, Pennsylvania State Teachers	
Shalowitz, Ernest Maurice	D.C.	College, Mansfield	
Shamie, Emile Robert	N.Y.	Ed.M. 1936, Duke University	D.C.
Shamigian, Zuvart	D.C.	Shaw, Dolores	D.C.
Shanahan, Dennis Francis	Pa.	Shaw, Elizabeth	N.Y.
A.B. 1948, Princeton University		Shaw, Irwin Vincent	D.C.
Shandelmier, Ernest William	Pa.	Shaw, Margaret Goddu	
Shane, Margaret Brinkerhoff	D.C.	A.B. 1936, Radcliffe College	
A.B. 1948, The George Washington		A.M. 1940, Columbia University	Va.
University		Shaw, Richard Lawrence	Va.
Shank, Joan Barry	D.C.	Shaw, Robert Harrison	
Shank, Robert Edgar	Md.	A.B. 1940, Carroll College, Wis.	Pa.
Shanklin, Emily Shacklett	Md.	A.M. 1941, University of Wisconsin	D.C.
Shanks, Oscar Eugene	Md.	Shaw, Russell Ellwood	
Shanks, Samuel Lee, Jr.	D.C.	Shaw, William Frederick	N.Y.
Shannon, Albert L.	D.C.	A.B. 1949, University of Miami	Va.
		Shaw, William Miller	
		Shea, Catherine Virginia	



Shea, Colvin Carmine	Va.	Sherfy, Laurence Polkinhorn	Md.
Shea, Corienne Helen	D.C.	A.B. 1933, LL.B. 1936, A.M. 1947, The George Washington University	
Shea, Joseph Michael	N.J.	LL.M., 1937, Harvard University	
Shea, Richard Francis	Mass.	Sherfy, Raphael	Md.
Shea, Robert Taylor	Ill.	A.B. 1933, LL.B. 1936, LL.M. 1938, A.M. in Gov. 1941, The George Washington University	
Shea, Robert Tracy	Va.	LL.M. 1937, Harvard University	
Shearer, Nancy Lee	Md.	Sherfy, Wanda Connor	Md.
Shearin, Forrest Greene, Jr.	N.C.	Sheridan, Helen Mary	Pa.
B.S. 1949, Wake Forest College		B.S. in Ed. 1948, Pennsylvania State Teachers College, Lock Haven	
Sheble, Walter Franklin	Pa.	Sheridan, Philip Henry	D.C.
A.B. 1948, Princeton University		B.S. in E.E. 1944, Worcester Polytechnic Institute	
Sheehan, Edward Patrick	Va.	Sheridan, Philip Regis	Pa.
A.B. 1949, The George Washington University		A.B. 1949, The George Washington University	
Sheehan, William Francis	D.C.	Sherline, Lee Stanley	D.C.
Sheeler, Alene	D.C.	Sherman, Albert Stanley	N.Y.
Sheeran, James Joseph	N.J.	A.B. 1943, University of Rochester	
Sheeskin, Jacob	D.C.	Sherman, Benjamin	N.Y.
LL.B. 1949, The George Washington University		A.B. 1948, New York University	
Sheets, Carolyn Sloan	N.Y.	Sherman, Fred	Va.
A.B. 1947, Wheaton College, Mass.		A.B. 1934, University of Oklahoma	
Sheets, Evelyn Snyder	D.C.	Sherman, Louise Hester	D.C.
A.B. 1926, Carson-Newman College		Sherman, Robert Miller	Tex.
B.S. 1929, University of Virginia		Sherman, Sidney	D.C.
Sheff, Irving	Mass.	A.B. 1947, The George Washington University	
A.B. 1948, The George Washington University		Sherman, Solomon Gaston	D.C.
Sheffield, Noreen Leahy	D.C.	Sherman, Vincent Edwin	Md.
Sheffield, Osceola Kirby, Jr.	Fla.	Sherman, William Robert	Ill.
Sheil, John Francis	D.C.	B.S. 1946, University of Wisconsin	Fla.
Sheil, Mary Elizabeth	N.Y.	Sherr, Alan Edward	D.C.
Shelden, Avery G.	Iowa	Sherrick, Clayton A.	Va.
Sheldon, Donal Bruce	D.C.	Sherriff, James Edward	
Shelhorse, Aurabelle Maryann	Va.	A.B. 1947, The George Washington University	
Shelhorse, George Walter	Va.	Sherrill, Laverne Herman	Okla.
Shellard, Jennie Boyer	Va.	Shervey, Janice Lorraine	D.C.
Shelley, Francis Joseph	Pa.	Sherwin, Garnett Sarver	Va.
Shelly, Dorothy Estelle	N.J.	Sherwin, Herbert David	Mass.
Shelly, George William	N.J.	Sherwin, William Winsor	Va.
B.S. 1942, State Teachers College, Farmville	Va.	Sherwood, Frederick	Va.
Shelly, Ronald George	N.J.	Sherwood, James Steck	
Shelton, John Paul	Va.	A.B. 1947, The George Washington University	
Shelton, Mabel Frances	Va.	Shesser, Ira	N.J.
Shelton, Thomas Edwin	D.C.	Shettel, Harris Harlan	D.C.
Shemky, Joseph John	Mich.	Shevlin, Thomas Joseph	Pa.
Shenyurek, Eleanor West	Turkey	B.S. 1940, University of Scranton	
A.B. 1947, The George Washington University		Shibley, Frances Wilhelm	Va.
Shepanek, Norbert Alvin	Ill.	Shields, Benjamin Bayard	Fla.
Shepard, Robert Stanley	D.C.	Shields, Bert A.	N.Y.
Shepardson, Hazel Gertrude	D.C.	Shields, Carrington	D.C.
Shepard, Charles Perry	D.C.	A.B. 1931, Randolph-Macon Woman's College	
A.B. 1937, The George Washington University		M.S. 1937, Columbia University	
Shepard, William Edward	Va.	Shields, Elise Trigg	Md.
B.E.E. 1949, The George Washington University		Shields, Susan Braddy	Md.
Shepherd, Dorothea Glennie	Va.	Shilling, Charlotte	Va.
Shepherd, Janet Nevin	Md.	Shim, Alvin Tong	Hawaii
Sheppard, Elizabeth Anne	D.C.	A.B. 1949, University of Hawaii	
Sheppard, William Jacob	Va.	Shimabukuro, Henry	Hawaii
Sheppy, Phyllis	D.C.	Shimabukuro, Masaichi	Hawaii
Sherard, Virginia Mae	Tex.	Shimberg, H. Lee	D.C.
Sherba, John	D.C.	A.B. 1939, College of William and Mary	
Sherertz, Paul Claiborne	D.C.	Shimkus, Daniel Francis	Mass.
B.S. in E.E. 1943, Duke University			
Shereshfky, Ruth Miller	D.C.		
A.B. 1949, University of Chicago			



Shindell, Sidney	Conn.	Shore, Parkhurst Alan	Va.
B.S. 1944, Yale University		B.S. 1949, The George Washington University	Pa.
M.D. 1946, Long Island College of Medicine	D.C.	Shortino, Joseph Dominic	N.H.
Shine, Dorothy Helen		Shortlidge, Anne	Md.
B.S. 1940, Bowling Green State University	D.C.	A.B. 1941, Smith College	Mass.
Shine, Howard Lawrence		Shosteck, Robert	
A.B. 1940, Bowling Green State University	Ga.	A.B. 1937, The George Washington University	
Shingler, Julian James		Shott, Kathleen Virginia	
B.S. in M.E. 1939, United States Coast Guard Academy	D.C.	B.S. 1936, Massachusetts Institute of Technology	Va.
Shingler, William Gendron, Jr.		Shotwell, Clark Harding	Ind.
A.B. 1946, University of Missouri	Md.	Shoup, Wilson Elliot	Ky.
Shinn, Charles Curtis	W.Va.	A.B. 1937, Indiana University	Iowa
Shinn, Joseph Melville	Md.	Shouse, William James	Pa.
Shipe, Kenneth Ray	W.Va.	Shove, Lois Aileen	Pa.
Shipley, Charles Waldron		Shovlin, John J.	
A.B. 1942, Shepherd College	D.C.	Shovlin, Joseph Charles	
Shipley, George Edward	W.Va.	B.S. in P.E. 1949, Pennsylvania State Teachers College, East Stroudsburg	Md.
Shipley, John Bruce		Showalter, John Henry	Md.
A.B. 1940, Shepherd College	D.C.	Showalter, Ruth Howsell	
Shipley, William Stanton	Mass.	B.S. 1936, Radford College	D.C.
Shipman, Harvey Andrew		Showalter, William Price	Va.
Shipman, Karl Waldo	D.C.	Showkeir, Julian Mansour	Md.
Shipman, Patricia Ann	Va.	Shreeve, Charles Alfred, Jr.	
Shipp, Charles Kenneth	D.C.	B.E. 1935, Johns Hopkins University	Va.
Shipp, Thomas Wooten	D.C.	M.S. 1943, University of Maryland	Va.
Shirey, William Cluff	Pa.	Shreve, Earl Randolph	Md.
Shirk, Gilbert LaRue		Shreve, Judith Hull	
Shirk, Grace Etta	D.C.	Shryock, Richard Fuller	
Shirk, Harold George	Md.	A.B. 1939, University of North Carolina	S.C.
Ph.D. 1938, University of Maryland	D.C.	Shuford, McDonald Isbell	
Shirley, Fred William, Jr.		B.S. 1937, Clemson Agricultural College	N.C.
A.B. 1949, The George Washington University	Miss.	Shugar, Harold Bernard	
Shirley, Mary Frances	N.Y.	A.B. 1946, University of South Carolina	Pa.
Shirley, Reginald Douglas	Ark.	Shugars, Caroline Louise	
Shiver, David Hawley	Tenn.	B.S. 1937, Pennsylvania State Teachers College, Shippensburg	W.Va.
Shivers, Rufus William		Shugart, Elizabeth Wise	
B.S. 1943, Mississippi State College	N.J.	A.B. 1947, Ohio University	Tex.
Shkolnik, Leon Jerome		Shugart, James Earl	
B.S. in M.E. 1948, Newark College of Engineering	Pa.	A.B. 1948, The George Washington University	Md.
Shlanta, Michael P.	D.C.	Shullenbarger, John Albert	D.C.
Shnider, Jack Carl	N.Y.	Shulman, Fay Janice	Pa.
Shnitnikoff, Helen Aleona	N.J.	Shultz, Anna Mary	
Shnitzer, Paul		B.S. 1947, Pennsylvania State Teachers College, Mansfield	D.C.
A.B. 1948, Upsala College	Va.	Shultz, Meyer	
Shockey, Evelyn Louise		B.S. 1929, College of the City of New York	
B.S. 1936, University of Virginia	D.C.	A.M. 1931, Columbia University	Md.
Shockey, William Herbert		Shuman, Anne Morse	
Shoemaker, Francis Dodge	Md.	A.B. 1949, Connecticut College	Kans.
B.S. 1937, University of Maryland		Shuman, Harold Dean	W.Va.
Shoemaker, Harold Lloyd		Shumate, Martha Lee	Pa.
A.B. 1944, Berea College	Pa.	Shundich, Peter	Pa.
Shoemaker, Paul Robert	D.C.	Shurman, John Jack	Utah
Shoemaker, Philip Ward		Shurtleff, Miller Francis	D.C.
Shoemaker, Randall	Va.	Shuster, Alvin	Va.
Shoemaker, Robert Frank	D.C.	Shute, Kenneth Walter	
Shoemaker, William Robert	Ala.	A.B. 1948, The George Washington University	Wis.
Shook, John Henry	Ga.	Shutkin, Joseph Jerome	
Shookman, Loyd Allen	Ind.	A.B. 1947, University of Wisconsin	Fla.
A.B. 1949, The George Washington University		Sibthorp, George	Md.
Shorb, Rudolph Earl	D.C.	Siciak, Walter Stanley	
Shordiche, Ruth	N.J.		
Shore, Jacob	Ohio		
B.S. in M.E. 1946, Illinois Institute of Technology			



Sides, Jimmie Miller	D.C.	Simmons, James Quimby, Jr.	N.J.
Sidwell, James Dudley	Mo.	B.S. 1938, Wake Forest College	
Siebert, Patricia Anne	Argentina	M.D. 1941, Medical College of the	
Siegel, Abraham	Calif.	State of South Carolina	
B.S. 1940, College of the City of		Simmons, Kemper	Va.
New York		A.B. 1938, Marietta College	
Siegel, Abraham Lazarus	N.Y.	Simmons, Loren Chase	D.C.
B.S. 1939, College of the City of		Simmons, Richard Paul	Md.
New York		Simmons, Thelma Thompson	Va.
M.S. 1949, New York University		Simms, Barbara Anne	D.C.
Siegel, Frieda	Va.	Simms, Doris Mae	Va.
A.B. 1939, Hunter College		Simms, Harry Arthur	D.C.
Siegel, Harry M.	D.C.	Simms, John Raymond	Md.
Siegel, Julian Lee	Mo.	Simms, Shirley Hazen	D.C.
Siegel, Ralph	N.Y.	Simon, Jeanette	D.C.
A.B. 1948, University of Maryland		Simon, Philip David	D.C.
Siegel, Sidney Herbert	N.Y.	Simon, Philip James	Iowa
A.B. 1938, Brooklyn College		Simon, Samuel Louis	Mass.
A.M. 1940, New York University		Simonds, Paula LeRoy	D.C.
Siegel, William Marvin	D.C.	Simonetti, Edward	Mass.
Siegfried, Robert Ellwood	Ohio	Simons, Karl Ernest	Hawaii
Siegler, Judith Ellen	N.J.	A.B. 1938, University of California	
Siemer, Joan Edith	N.Y.	Simonton, Lawrence Joseph	D.C.
Sienskiewicz, Helen Madeline	Pa.	Simpson, Donald Fletcher	Va.
A.B. 1947, University of Pennsylvania		Simpson, Ethel Irene	D.C.
Sifton, Paul Ginsburg	D.C.	B.S. in Ed. 1939, Kansas State	
Siggers, Janice Muriel	D.C.	Teachers College, Emporia	
Sigrest, Kathryn Jeanette	Ala.	M.S. 1947, Fort Hays Kansas State	
A.B. 1935, University of Alabama		College	
Sikorsky, Albert	D.C.	Simpson, Herman LeRoy	N.C.
Silbaugh, Richard Walter	Iowa	Simpson, J. Lupton	Va.
Silberman, Louis B.	Md.	B.S. 1925, Hampden-Sydney College	
B.S. 1947, College of the City of		Simpson, Jack Byron	Pa.
New York		A.B. 1949, Earlham College	
Sileo, Michael Anthony, Jr.	N.J.	Simpson, James William, Jr.	Va.
Silk, Harry	N.J.	Simpson, John W.	Pa.
B.S. 1931, Newark College of		A.B. 1943, University of Rochester	
Engineering		LL.B. 1948, Harvard University	
M.S. 1947, The George Washington		Simpson, Joseph	Calif.
University		Simpson, Melvin William	Va.
Silliman, Barbara Englund	Va.	B.S. 1936, Juniata College	
Silliman, Julian Winthrop	Calif.	Simpson, Richard Douglas	D.C.
A.B. 1930, Stanford University		A.B. 1948, Westminster College, Pa.	Pa.
Silling, Daniel Robert, Jr.	D.C.	Simpson, Robert Ellsworth	D.C.
Silva, Harold	Tenn.	Simpson, Roxie Collie	
Silver, Charles	N.J.	A.B. 1932, Meredith College	Md.
Silver, David Henry	N.Y.	Sims, Fred Amos	
Silver, Jack Samuel	D.C.	A.B. 1939, Henderson State Teachers	
Silverberg, Stanley Melvin	D.C.	College	
B.S. 1948, The George Washington		Sims, Judith Fisher	Wis.
University		Sinauer, Ernst Maxwell	N.Y.
Silverman, Aaron	D.C.	A.B. 1939, Cornell University	
A.B. 1947, The George Washington		Sinclair, John H.	D.C.
University		Sinclair, Sheila Ann	Va.
Silverman, Betty Zelma	D.C.	Sincoff, Janet Zelda	D.C.
Silverman, David	D.C.	Sing, George Jung	D.C.
Silverman, Florence Emmalee	D.C.	Sing, Joseph Lee	D.C.
Silverman, Lawrence	D.C.	Sing, Milton Lee	D.C.
Silverman, Marilyn Pearl	N.J.	Singel, Robert Duane	D.C.
B.S. 1948, University of Illinois	Ill.	A.B. 1942, University of Wisconsin	
Silverman, Maurice Bernard	Conn.	Singer, Allan Milton	D.C.
Silverman, Norman	Md.	Singer, Elaine Betty	N.J.
Silvey, Irene E.	D.C.	Singer, Lawrence Robert	D.C.
A.B. 1926, University of Oregon		Singer, Mary Phyllis	D.C.
A.M. 1938, Ohio University		Singer, Robert Morey	D.C.
Simmerth, John William	Okla.	Singer, Stanley Irvin	D.C.
Simmonds, Grant Duer, Jr.	D.C.	Singer, Thomas Eric	Mass.
Simmons, Delford Edgar	Va.	Singhass, Robert Allison	D.C.
Simmons, Dorothy Jean	D.C.	Singleton, Ewell Sam	D.C.
Simmons, Earle Mitchell	Va.	Singleton, Julius Knox	D.C.
		A.B. 1941, Berea College	
		Singleton, Marjorie Christensen	D.C.
		B.S. 1941, University of Utah	



Singleton, Walter Ferguson	D.C.	Slaughenhaupt, Arnold Claude	Pa.
Singman, David	N.Y.	B.S. in E.E., 1949, Pennsylvania State College	Md.
B.S. 1949, The George Washington University		Slaughter, Patricia Anne	D.C.
Singman, Julian Howard	D.C.	Slaviero, Dorothy Jean	Pa.
Sink, Jane Lee	D.C.	Slavik, John Andrew	D.C.
B.S. 1943, State Teachers College, Farmville, Va.		Slavin, Joseph George	
Sinn, William Herman	Va.	A.B. 1949, The George Washington University	N.Y.
Sinnott, Robert Patrick	D.C.	Slavin, Leon Jacob	N.J.
Sipe, Sarah Milnes	Va.	Slemmer, Carl Weber, Jr.	
B.S. 1928, Madison College, Va.		B.S. 1948, Muhlenberg College	Tex.
Sirbaugh, Isaac William	Va.	Sligar, Mary Ray	
Sirota, Helene Carole	D.C.	B.S. 1937, A.M. 1941, West Texas State Teachers College	Va.
Sirota, Milton	N.Y.	Sligh, Frederick Henry	
Sirota, Solomon	N.Y.	A.B. 1949, The George Washington University	Ill.
Sisk, Johnnie Coffee	Ga.	Sloan, Richard	Md.
Siskind, Eliot Irvin	Md.	Sloan, Sheila Mary	Md.
A.B. 1948, Johns Hopkins University		Sloane, Edward Frederick	D.C.
Sissenwine, Norman	Md.	Sloat, Halbert Maitland, Jr.	D.C.
B.S. 1948, New York University		Sloat, Jonathan Welsh	Mass.
Sithens, Edward Samuel	Md.	Slonim, Arnold Robert	
Sithens, Lucille Edward	N.J.	B.S. 1947, Tufts College	D.C.
Sitler, Willard Stanley	Pa.	A.M. 1948, Boston University	D.C.
B.S. 1948, Pennsylvania State College		Slotemaker de Bruine, Jan Rudolph	Md.
Sitz, Glenn William	D.C.	Slotemaker de Bruine, Maria Wilhelmina	D.C.
Sivers, Mary	Va.	Slothower, Dorothy Mae	Md.
Sizemore, Ernest Nolin	Va.	Slusher, Sarah Velma	Va.
Sizemore, Harry Daniel		Sly, Robert Dunham	
A.B. 1949, College of William and Mary		Smagorinsky, Joseph	
Sjoberg, Edward Theodore	D.C.	B.S. 1947, M.S. 1948, New York University	Pa.
Skalak, Rose	N.Y.	Smale, Bernard Clair	Pa.
A.B. 1939, Hunter College		B.S. 1949, University of Pittsburgh	Calif.
B.S. 1940, Columbia University		Smale, Ronald Anthony	D.C.
Skelly, George Martin III	Md.	Smalhout, John James	
A.B. 1949, The George Washington University		Small, Grover Lee	N.Y.
Skelly, John Thomas	Cuba	A.B. 1949, University of Maryland	
Skelton, Junius Benjamin	D.C.	A.B. 1949, The George Washington University	S.C.
Skelton, Robert T.	N.Y.	Smart, Hazel Mildred	D.C.
Skidmore, Jack Hoover	N.C.	Smart, James Alexander	Md.
Skillman, Douglas Benjamin	Va.	Smay, Charles Franklin, Jr.	Minn.
B.S. 1942, Pennsylvania State College		Smeland, Ruth Jean	Pa.
Skimmer, Henry Ross	Wyo.	Smellowsky, Stephen James	Conn.
B.S. 1947, University of Wyoming		Smernoff, Stephen David	Mass.
Skinner, John Carol	D.C.	Smigielski, Joseph Francis	D.C.
Skinner, John William	Md.	B.S. 1941, Boston College	D.C.
A.B. 1942, Wesleyan University		Smiley, Warren Danford	Pa.
A.M. 1947, The George Washington University		Smith, Albert Benjamin	
Skinner, Leonard Morris	D.C.	Smith, Allen Harold	
B.S. in Ed. 1935, Northeast Missouri State Teachers College		A.B. 1949, Gettysburg College	Va.
Skinner, Minter Perry	W.Va.	Smith, Anne	Ga.
A.B. 1927, Fairmont State College		Smith, Arthur Godfrey	Va.
A.M. 1934, West Virginia University		Smith, Arthur Preston	D.C.
Skinner, Paul Artemus	Mass.	Smith, Arthur Robert, Jr.	
Skinner, William Waddell	D.C.	B.S. 1950, Juniata College	Va.
Skloot, Marvin Mayer	N.J.	Smith, Audrey Diane	Md.
Skougaard, Robert Ivar	D.C.	Smith, Barbara Anne	Va.
Skuba, Helynn Audrey	Conn.	Smith, Benjamin Williams	
Skura, Rudolf H.	D.C.	B.S. 1940, Virginia Polytechnic Institute	
Skvarna, John Joseph	Pa.	M.S. 1947, The George Washington University	D.C.
Slack, William	N.J.	Smith, Betty Jane	Tex.
Slate, Virginia Brigham	Va.	Smith, Bonnie Dora	Ala.
B.S. in Ed. 1946, Boston University		Smith, Byron LaVelle	D.C.
Slater, Ruth Janice	Conn.	Smith, Carolyn Mary	Va.
Slattery, David Anthony	D.C.	Smith, Carter Lee	Okl.
B.S. 1948, Georgetown University		Smith, Casper Hayden, Jr.	
Slattery, Frank J.	D.C.		
Slattery, Richard Gates	Md.		
Slaugh, Donald Clarke	Va.		



Smith, Charles Earl	Mo.	Smith, Jack Albert	N.M.
Smith, Charles Hubert	Ga.	Smith, Jack Morgan, Jr.	Ga.
B.S. 1932, United States Naval Academy		A.B. 1948, Emory University	Ariz.
Smith, Charles Malloy	Md.	Smith, Jackson Wray	
Smith, Charles Nesbitt	D.C.	A.B. 1948, The George Washington University	Ga.
Smith, Charles William	N.Y.	Smith, James Edward	
Smith, Chester Horace	Nev.	B.S. 1934, United States Naval Academy	Va.
Smith, Clare Frances	D.C.	Smith, James Lerue	D.C.
A.B. 1941, Smith College		Smith, James Mitchell	Va.
A.M. 1942, University of Pennsylvania	D.C.	Smith, James Oscar	Mich.
Smith, David Bushnell	Md.	Smith, James Warren	
Smith, Donald David	Va.	B.S. in Ed. 1931, A.M. 1939, University of Michigan	D.C.
Smith, Donna Louise	D.C.	Smith, Jeanne Lucille	
Smith, Dorothy	Oreg.	B.F.A. 1941, University of Illinois	D.C.
Smith, Dudley Burcham		Smith, Jennings Talbot	Md.
B.S. 1945, California Institute of Technology	D.C.	Smith, Joan Marlowe	Mass.
Smith, Edward Anthony	D.C.	Smith, John Discoe	N.Y.
Smith, Edward George	Va.	Smith, John Terrence	
Smith, Elbert Keener	Tex.	M.D. 1929, Columbia University	
Smith, Eleanor Lockery	D.C.	A.B. 1930, Dartmouth College	N.Y.
Smith, Elizabeth Popovich	Va.	Smith, Joseph Edward	D.C.
A.B. in Ed. 1941, Rhode Island College of Education		Smith, Josephine Lucille	
Smith, Emery Peter	D.C.	A.B. 1930, University of Buffalo	
Smith, Emory Clark	Tex.	A.M. 1943, The George Washington University	Va.
A.B. 1929, North Texas State Teachers College		Smith, Joyce Elizabeth	Va.
A.M. 1933, University of Texas		Smith, Kendall Owen	N.Y.
LL.B. 1937, Southern Methodist University		Smith, Lawrence Crane	D.C.
Smith, Esther B.	Va.	Smith, Leon	
Smith, Fern Jones	Mo.	A.B. 1947, LL.B. 1948, The George Washington University	Va.
Smith, Frances Caldwell	Va.	Smith, LeRoy Walter	
A.B. 1935, College of William and Mary		A.B. 1947, American University	Va.
Smith, Frances Dean	D.C.	Smith, Louis Guy, Jr.	Va.
Smith, Francis Murphy	D.C.	Smith, Luther Earl	D.C.
Smith, Frank White	Md.	Smith, Margaret Anne	Md.
Smith, Franklin Guest	D.C.	Smith, Margaret Isabel	Va.
B.S. 1933, United States Military Academy		Smith, Martin Timothy	N.C.
Smith, Frederick Holmes	W.Va.	Smith, Marvin Burrus, Jr.	Md.
A.B. 1943, West Virginia University		Smith, Marvin Duane	Iowa
LL.B. 1949, Washington and Lee University		Smith, Mary Ann	Ga.
Smith, Frederick Lovick	D.C.	Smith, Mary Louise	
Smith, Frederick Newcomb	Ind.	B.S. 1926, University of Chicago	Md.
Smith, French Crawford	Md.	Smith, Mea Clyde	
Smith, George Francis	D.C.	A.B. 1917, University of Texas	N.C.
Smith, Gerald Winfree	D.C.	Smith, Mildred Brunt	
Smith, Gladys	Md.	A.B. 1933, University of North Carolina	Va.
Smith, Gowans	Va.	Smith, Mildred Laetitia	Ark.
A.B. 1927, Princeton University		Smith, Minnie Alma	W.Va.
Smith, Grady Fay	Ohio	Smith, Nancy Caroline	
Smith, Harold	N.Y.	B.S. 1949, West Virginia Wesleyan College	
Smith, Harold Calmes, Jr.	Md.	Smith, Natalie Harriet	N.Y.
Smith, Harold Jerome	D.C.	Smith, Nellie Jane	Md.
A.B. 1948, The George Washington University		A.B. 1947, Emmanuel Missionary College	
Smith, Harry Wallace, Jr.	Md.	Smith, Nicholas James	Va.
Smith, Helen Page	Va.	Smith, Orval James	D.C.
Smith, Herbert Willard	D.C.	A.B. 1947, University of Wyoming	
Smith, Hewlett	Ga.	Smith, Patrick Druey	D.C.
A.B. 1938, A.M. 1942, The George Washington University		Smith, Pearl O.	Ind.
B.S. 1942, Georgetown University	Va.	Smith, Richard Henry	Va.
Smith, Hugh Edward	N.Y.	Smith, Robert	N.Y.
B.C.E. 1947, Rensselaer Polytechnic Institute		Smith, Robert Clyde	Ala.
Smith, J. Gordon	Md.	A.B. 1943, University of Alabama	Va.
		Smith, Robert Dilman	Ill.
		Smith, Robert Sams	



Smith, Robert Tynes III	Va.	Snodgrass, Ernest Walter	W.Va.
A.B. 1947, The George Washington University		A.B. 1932, Morris Harvey College	
Smith, Roger Emerson	D.C.	A.M. 1940, West Virginia University	Va.
Smith, Samuel Rodmond	Va.	Snodgrass, Paul David	S.D.
A.B. 1948, The George Washington University		Snodgrass, Stanley Benton	Va.
Smith, Shelden Keith	D.C.	Snodgrass, William David	D.C.
Smith, Shirley B.	Mich.	A.B. 1941, King College	
B.S. 1948, The George Washington University		Snodgrass, Ann Browning	D.C.
Smith, Stuart Stump	D.C.	A.B. 1930, Smith College	Md.
Smith, Theodore Tristram	Va.	Snook, Katherine Cosandey	N.Y.
Smith, Thomas Jerald	D.C.	Snow, Edward Francis	D.C.
Smith, Thomas Lewis	Md.	Snow, Thomas Lawrence	N.J.
Smith, Thomas Warner	D.C.	Snowden, Barbara	Pa.
A.B. 1948, The George Washington University		Snyder, Charles Joseph	
Smith, Tonas Arthur	Md.	Snyder, Donald Kenneth	
A.B. 1949, The George Washington University		A.B. 1949, The George Washington University	Ohio
Smith, Truett Conwell	Fla.	Snyder, Emmor Frederick	W.Va.
Smith, Verna Emily	D.C.	Snyder, Esther Anne	Md.
Smith, Violet Zeigler	Va.	Snyder, Frances	D.C.
Smith, Walker William	N.C.	Snyder, Gilbert Reed	
Smith, Wallace Morrell	Va.	B.E.E. 1949, The George Washington University	W.Va.
A.B. 1949, The George Washington University		Snyder, Glenn Orval	D.C.
Smith, Walter B.	Mass.	Snyder, Lucille	Pa.
Smith, Warren Webster	D.C.	Snyder, Mark Curtis	Va.
Smith, Willard Franklin	Va.	Snyder, Martha Frances	
Smith, William Christopher	D.C.	A.B. 1945, LL.B. 1946, LL.M. 1947, The George Washington University	Pa.
Smith, William George	Ill.	Snyder, William, Jr.	Wash.
B.S., M.D. 1947, University of Chicago		Sobeck, Frank Joseph	D.C.
Smith, William Jerome	Md.	B.S. 1949, Seattle University	
Smith, William Milton	Miss.	Sobolewski, Erma May	D.C.
Smith, William Nesbit	D.C.	A.B. 1935, Missouri Valley College	
B.S. 1933, Bucknell University		Socular, Marilyn	D.C.
Smith, William Parkhurst, Jr.		A.B. 1949, University of Maryland	Ill.
Smithy, Frances Megan	D.C.	Sodd, Mary Ann	
A.B. 1941, University of Chicago	Ill.	Sohl, Walter Wood, Jr.	
Smithy, Linual Dale	Calif.	A.B. 1939, DePauw University	N.Y.
Smithson, Clyde Elmer	D.C.	A.M. 1940, Georgetown University	France
Smook, Eustace Rogers	N.C.	Sokolowsky, William	Ill.
Smokler, Melvin Irving	D.C.	Solal, Jean Louis	D.C.
Smolen, Gloria Tomkins	D.C.	Solberg, Marian Ruth	D.C.
Smolen, Joseph Sidney	D.C.	Solis, Arnold	D.C.
A.B. 1946, University of California at Los Angeles		Solis, Marin Saldana	
LL.B. 1949, The George Washington University		Sollins, Nancy Thurber	D.C.
Smookler, Morton Bernard	Del.	A.B. 1946, The George Washington University	Pa.
Smoot, Henry Brawner	Va.	Sollitt, William	
Smoot, Hope Massie	N.Y.	Solomon, Edward, Jr.	N.Y.
B.S. 1930, Harvard University	Pa.	A.B. 1949, Pennsylvania State College	D.C.
Smoot, Jeannette Irving	D.C.	Solomon, Lewis Jay	Ohio
Smullen, Isabelle Anna		Solomon, Nona Lee	Md.
B.S. 1937, Temple University		Solomonson, Carl Edward	
Smuzynski, Alvin Walter	Mich.	Solow, Max	
Snackenberg, Joan	D.C.	B.E.E. 1943, The George Washington University	Md.
Snare, Clayton Leon	Mo.	Solt, James Earl	
Snatager, Leonie	D.C.	A.B. 1934, University of Maryland	W.Va.
A.M. 1940, Amsterdam University		A.M. 1939, Columbia University	Ohio
Sneddon, John James	Va.	Solter, Myron Woodrum	
Snell, Henry Ambrose, Jr.	D.C.	Solton, William Donald, Jr.	Va.
B.S. 1942, University of Maine		B.M.E. 1948, Rensselaer Polytechnic Institute	
Snell, Roy Edward	D.C.	Somers, George Britton	Va.
Snellman, William Cornelius	Pa.	A.B. 1939, University of Richmond	N.Y.
Snider, Frankie Louise	Ohio	Somers, John Charles	Va.
Snider, Leonard Alfred	Va.	Somers, Nelson Roy	N.Y.
B.S. 1948, The George Washington University		Somerville, Atwell Caden	
		Sommerfield, Stanley Lyman	
		A.B. 1940, LL.B. 1942, Syracuse University	



Sonday, Francis Llewellyn	Ind.	Spaulding, John Henry	D.C.
A.B. 1938, Indiana University		A.B. 1949, The George Washington University	
Sonnabend, Joel Simon	N.J.	Spaven, Margaret Napier	Va.
Sonnenberg, Herbert Jerome	Md.	Speaks, James Taylor	Md.
Sonnett, George M.	Pa.	Spear, Harvey Milton	Md.
Sonnier, Genevieve Lois	La.	A.B. 1942, Brown University	
Soo, Raymond	D.C.	LL.B. 1948, Harvard University	
B.S. 1948, University of Maryland		Spear, Marion Alice	Va.
Sorell, Gerald Paul	N.Y.	Spear, William W.	Va.
Sorensen, Margaret Elizabeth	D.C.	A.B. 1933, University of Nebraska	
Sorenson, Barbara Jeanne	N.Y.	LL.B. 1936, The George Washington University	
Sorenson, Clara Thelma	Iowa	Spearin, Herbert Prescott	Wash.
Sorenson, Edwin Denison	Ohio	Spearnak, Pearl	Pa.
A.B. 1947, Denison University		Spears, Polly Robin	Pa.
Sorenson, Marian Ruth	Iowa	Specht, Norman Eugene	Va.
Sorge, William Friedrich	Wis.	Spector, Eugene Paul	D.C.
Soroka, Mary Olga	D.C.	A.B. 1947, The George Washington University	
B.S. 1926, Massachusetts Institute of Technology		Spector, George	N.Y.
Soroka, Seymour Philip	N.J.	B.C.E. 1942, M.C.E. 1947, Polytechnic Institute of Brooklyn	
Sorrell, Frederick Maurice	Va.	Spector, Sharon Madeline	D.C.
Sorrell, Ida Davis	Va.	Spector, William Samuel	Wis.
A.B. 1949, The George Washington University		Spedden, Robert Anthony	D.C.
Sorrell, Richard Alexander	Md.	Speak, Alan Valiant	Va.
Sorrells, Alta Gertrude	Ill.	Speer, William Thomas, Jr.	D.C.
Sorrells, John Robert	Md.	Speevack, Harold Lynn	Ohio
Soscia, Louis Robert	N.Y.	B.S. 1949, Ohio University	
A.B. 1949, The George Washington University		Speidel, Frances Winifred	D.C.
Sotta, Robert Eugene	D.C.	Speidel, Rodney Christopher	D.C.
Sourcek, Frank James	Va.	Speight, Frank Young	Md.
B.E.E. 1948, The George Washington University		B.S.Ch.E. 1938, Alabama Polytechnic Institute	
Soukup, Gerald Charles	D.C.	Spellman, Ruth Ann	Mass.
Souther, Arthur Fuller	Va.	B.S. 1949, College of Our Lady of the Elms	
Souther, Richard Stirling	Md.	Spence, Charles E., Jr.	Idaho
Southerland, Elisabeth Larkin	Va.	Spence, John Sherman, Jr.	Md.
A.B. 1940, University of Georgia		Spencer, Carl Alfred	Ohio
Southwell, Paul M.	Va.	B.S. in Ed. 1934, Miami University	
A.B. 1940, The George Washington University		Spencer, Carmen Delano	D.C.
Sowards, Leona Noel	D.C.	Spencer, Charles Flavins	Va.
A.B. 1947, Municipal University of Wichita		A.B. 1944, University of North Carolina	
Sowards, Maxine Exer	D.C.	Spencer, Donald Braden	Md.
Sowell, John Broadus	D.C.	Spencer, Dorothy Jane	Md.
B.M.E. 1947, Georgia Institute of Technology		Spencer, George Browning	D.C.
Sowers, Mary O.	Va.	Spencer, John W. H.	Va.
Sowers, Robert Hauer	D.C.	B.S. 1948, The George Washington University	
Spadafora, Carmale	N.Y.	Spencer, Mary Anderson	Va.
Spaid, Giles Henry	W.Va.	Spencer, Ray	D.C.
Spain, Hillery David	D.C.	Spencer, Robert Mitchell	Va.
Spain, Norman Noah	N.Y.	A.B. 1949, The George Washington University	
A.B. 1946, Brooklyn College		Spencer, Thelma Lois	Md.
Spangle, Clarence Wilbur	Pa.	Spencer, Thomas Marshall	D.C.
B.E. 1945, Yale University		Spenser, Edith Moffat	Md.
Spangler, Leonard William	Va.	Speropulos, James George	D.C.
Spann, George Klepfer	D.C.	Sperry, Irwin Lloyd, Jr.	D.C.
Sparks, Charles Joseph	Md.	Spessard, Callahan Michael, Jr.	Va.
B.S. 1949, Cornell University		Spiegel, Samuel	Calif.
Sparks, Donald Carroll	D.C.	Spiegler, Robert Lee	N.Y.
B.S. 1946, University of Oklahoma		Spielman, Edward Thomas	Oreg.
Sparks, Lemuel Columbus, Jr.	Md.	Spielman, Milton Roy	Ohio
A.B. 1940, Roanoke College		B.S. 1944, Case Institute of Technology	
B.D. 1943, Lutheran Theological Seminary, S.C.		Spiker, Donald Axe	D.C.
Sparks, Morris Murray	N.Y.	Spiliotis, Niki	D.C.
Spatz, Murray	N.Y.		
Spaulding, Jo Anne	D.C.		



Spilsbury, Calvin C. A.B. 1942, The George Washington University	Utah	Stallings, James Henry, Jr. A.B. 1948, Duke University	D.C.
Spinner, Donald Burke	D.C.	Stallsmith, William Paul, Jr.	Md.
Spinner, Jack Robert	Ill.	Stambach, George Leonard	Pa.
Spirides, James Dennis A.B. 1949, The George Washington University	Fla.	Stambler, Howard Victor	D.C.
Spiro, Jacqueline	D.C.	Stamey, Harry Clay A.B. 1949, The George Washington University	Pa.
Spitler, Robert Henry	N.Y.	Stamper, Charles William	D.C.
Spivey, Mattie Rae B.S. 1943, Texas State College for Women	Tex.	Stancill, Carl Burton, Jr.	N.Y.
M.S. 1947, Iowa State College of Agriculture and Mechanic Arts		Stander, Maxwell B.S. 1942, College of the City of New York	Ohio
Spivey, Thomas Denmuth A.B. 1940, University of North Carolina	Va.	Stanfield, Florence Virgene	D.C.
Spoden, Florian George, Jr. B.S. 1933, University of Michigan	Va.	Stanisavljevich, Nikola Dragisha	D.C.
Sponheim, Carol Elaine	Minn.	Stanislawczyk, Joseph Michael	Md.
Spoonamore, Edward Bruce, Jr.	Kans.	Stankoff, Ralph Michael	D.C.
Sprawcew, Phillip Temofei	Oreg.	Stanley, C. Willard	Ohio
Springer, Curtis Howe A.B. 1949, University of Alabama	Ala.	Stanley, Earl R. B.S. 1943, Kent State University	
Springer, Paul Frederick A.B. 1943, University of Illinois	Md.	LL.B. 1949, The George Washington University	D.C.
M.S. 1948, University of Wisconsin		Stanley, Eric	N.Y.
Sprint, James Ashby	Va.	Stanley, Gregory Quin	D.C.
Sprowell, Lucretia Charles	Wyo.	Stanley, Ruth Burnham	D.C.
Sprowell, Robert Roy A.B. 1948, University of Denver	Wyo.	Stanley, Snowden	Mich.
Spruce, Frances		Stanners, Thomas Michael	Va.
Sprunger, Frederick F.	Md.	Stansbury, James William	Va.
Spruss, Doris Clara		Stansbury, Ralph Emory	Wash.
Spurlock, Clifton O'Brien		Stansfield, James Arthur	
Spurlock, Gene Paul		B.S. 1949, State College of Washington	Pa.
Spurlock, Roy Taylor	D.C.	Stanton, John Francis	R.I.
Spvadlin, Margaret Loretta	Va.	Stapleford, LeRoy Brown	Va.
Squillaro, Nicholas	Pa.	Staples, Gladys R. B.S. 1934, Mary Washington College	D.C.
Squire, William Harry	Pa.	A.M. 1930, Columbia University	
Srensek, Stanley Edward	Ohio	Stark, John Regan	Va.
Srnka, Sylvia Anita	Md.	A.B. 1938, Cornell University	N.Y.
Sroka, Edward Andrew B.S. 1941, Purdue University	Va.	M.P.A. 1941, New York University	Utah
Sroka, Wanda I.		Stark, Lois Iva	W.Va.
Stables, LeRoy C. A.B. 1948, Syracuse University	D.C.	Stark, Morton S.	
Stachniewicz, Gloria Patricia	N.Y.	Stark, Norman Paul	Md.
A.B. 1949, University of California		Stark, Robert Lee	
Stachowiak, Edward Joseph	Calif.	Starkey, Jesse Lee A.B. 1948, Western Maryland College	D.C.
Stachura, Wendy Sue	Pa.	Starling, Lindsey	Va.
Stacy, Charles Mack B.E.E. 1949, Georgia Institute of Technology	Va.	Starnes, Nancy Ely A.B. 1945, Bryn Mawr College	Ky.
Stacy, Emily Mildred	Ark.	Starns, Henry Carroll	D.C.
Stade, Margaret		Starobin, Frieda	D.C.
Stadtmiller, Jack Edward		Starr, David Whelpley	Pa.
Stadtmueller, Mary Elizabeth A.B. 1925, Coe College	D.C.	Starr, Myron Maffin	N.Y.
Stafford, Bert Bedell A.B. 1947, University of Texas	N.J.	Starr, Samuel Charles	Va.
Stafford, Dorothy Craig	D.C.	Starr, Selig A.B. 1940, Brooklyn College	D.C.
Stage, Anson Hutchinson	Iowa	Start, Barbara Lee	N.Y.
Stahl, Gerald M.	Va.	Startari, Joseph Vitale	Kent.
Stahl, Robert William A.B. 1948, Gettysburg College	Va.	Startup, Elizabeth Jean	D.C.
Stainbrook, Norbert Elery	Pa.	Startz, Raymond Francis	D.C.
Stair, Ralph Lavar	D.C.	Stath, Mamie	Pa.
Stallings, Carlyle Page	Md.	Statts, Helen Anna	D.C.
Stallings, Clyde Morton	N.C.	Stauffer, Clyde Andrew, Jr. Stauffer, George Lester A.B. 1940, College of William and Mary	Calif.
		Stauffer, James Elwood A.B. 1940, Franklin and Marshall College	D.C.
		Stauffer, Jane Catherine B.S. in P.E. 1945, The George Washington University	



Staver, Evelyn Jane	Va.	Steiner, Archie Kenneth	Tenn.
Stayton, Ruth Downey	Va.	A.B. 1935, Lincoln Memorial University	
B.S. 1931, St. Marys College, Ind.		B.S. 1936, East Tennessee State College	
Stead, George W.	Pa.	M.S. 1940, University of Tennessee	D.C.
Steadman, Frank McNaulty, Jr.	Va.	Steiner, Otto Thomas	
Steadman, Lewis Tilden	Mich.	A.B. 1947, The George Washington University	D.C.
B.M.E. 1946, Syracuse University		Steiner, Paul Llewyn	D.C.
Stearn, Edna Vyvyan	Canada	Steinert, Leif Emil	N.Y.
Steck, Philip Clifford	W.Va.	Steines, Esther Bertha	Mo.
Stecker, Donald Max	D.C.	A.B. 1946, The George Washington University	
Steece, Philip John	D.C.	Steinhauer, Alan Cox	Pa.
Steed, Mildred Elizabeth	Va.	Steininger, Eugene Beachel	Pa.
B.S. 1931, State Teachers College, Farmville		Steinkolk, Roger	D.C.
Steed, Robert Earl	N.C.	A.B. 1949, The George Washington University	
A.B. 1947, Pennsylvania State College		Steinmeyer, Robert Jay	D.C.
Steele, Lendell Eugene	N.C.	B.S. 1943, University of Nebraska	Iowa
Steele, Patricia Coles	Va.	Stelck, William Ardell	
Steele, Shirley	D.C.	A.B. 1949, Drake University	Md.
Steele, Walter Edward	D.C.	Stell, Jack Powell	Minn.
Steenerson, Palmer Seymore	D.C.	Stempson, Oscar William, Jr.	D.C.
Stee, Arthur D.	N.C.	Stenger, Howard William	Ill.
A.B. 1935, Elon College		Stepanek, John James	Ill.
Ed.M. 1942, University of North Carolina		Stephan, Elsie Gertrude	Va.
Steffey, Richard Carlisle	Va.	Stephens, James Charles	
A.B. 1943, Roanoke College		A.B. 1937, A.M. 1938, University of California	Fla.
Steffler, Nolly	D.C.	Stephens, John	
B.S. 1948, University of Maryland		A.B. 1946, The George Washington University	Va.
Stegall, Edith Beverly	N.C.	Stephens, Lorene Vinson	
Stehl, Edward III	Md.	A.B. 1935, University of Arkansas	Va.
A.B. 1949, The George Washington University		Stephens, Marvin Massey, Jr.	D.C.
Steidel, James Charles	Tenn.	Stephens, Nadya	D.C.
Stein, Barnett	Md.	Stephens, Olive Audrie	Fla.
Stein, Charles	D.C.	Stephens, Robert Paul	
B.S. 1934, Case Institute of Technology		A.B. 1941, A.M. 1947, Harvard University	Md.
Stein, Harold Lawson	N.Y.	Stephens, William Theodore	D.C.
A.B. 1947, The George Washington University		Stephenson, Earl Donald	D.C.
Stein, Helen Louise	D.C.	Stephenson, Fewson Graham	S.C.
Stein, Jerome M.	D.C.	Stephenson, Juanita Mudd	Va.
B.S. 1946, Agricultural and Mechanical College of Texas		Stephenson, Mabel Dillard	
Stein, Julian Ulman	D.C.	A.B. 1945, Randolph-Macon Woman's College	
Stein, Laura	Pa.	B.S. 1948, Columbia University	Va.
Stein, Mervin	Pa.	Stephenson, Stephen Hall	W.Va.
B.S. 1947, B.C.E. 1948, Rensselaer Polytechnic Institute		Stephoe, Nancy Moss	
Stein, Paula M.	D.C.	A.B. 1948, Sweet Briar College	N.Y.
Stein, Ruth	D.C.	Stepura, August	D.C.
Stein, Selma	D.C.	Sterling, Hildegard	Va.
Stein, Stanley	N.Y.	Sterling, Joyce Powell	Tex.
A.B. 1949, The George Washington University		Sterling, Marion Thornton	
Stein, Suzanne	D.C.	B.B.A. 1936, Baylor University	D.C.
Steinbauer, Walter Henry, Jr.	D.C.	Sterling, Milton Calvin	D.C.
B.S. 1947, Emory and Henry College		Sterling, William Norton	Fla.
Steinberg, Dorothy	D.C.	Stern, Estelle	N.Y.
A.B. 1932, Hunter College		Stern, Frank	
Steinberg, Eileen Theresa	D.C.	B.S. 1949, Union College and University	Mass.
Steinberg, Ira George	Md.	Sternberg, Arnold Charles	
B.S. 1948, Pennsylvania State College	N.Y.	A.B. 1947, University of Wisconsin	Md.
Steinberg, Willard	Minn.	Stetson, John Hewes	
Steinberger, Hugh Marion	D.C.	A.B. 1950, University of Maryland	Md.
B.S. 1941, University of Virginia		Stetson, Richard	
Steiniger, John Francis, Jr.	D.C.	A.B. 1948, The George Washington University	
A.B. 1948, LL.B. 1949, University of Kansas		Stetson, Rufus Edwin, Jr.	Maine
		A.B. 1947, Bowdoin College	



Stevan, Alexander Louis	Pa.	Stibravy, Lois	Va.
Stevens, Alberta Mary	D.C.	A.B. 1942, The George Washington University	Pa.
Stevens, Blanche Iona	D.C.	Stichler, William Issac	Mich.
A.B. 1907, Tabor College		Stickland, Lois Marie	N.Y.
A.M. 1927, Columbia University		Stickney, Bernard	
Stevens, Clyde Benjamin	Colo.	B.S. 1938, College of the City of New York	Miss.
B.S. 1930, United States Naval Academy		Stickney, Herbert Camp	Md.
Stevens, Donald, Jr.	Ohio	Stiefel, Eleanor Brooke	Conn.
A.B. 1949, Muhlenberg College		Stiefel, Jeanne Jennie	
Stevens, Dorothy C.	D.C.	A.B. 1947, Connecticut College	D.C.
Stevens, Douglas King	D.C.	Stieg, Clare Ann	Md.
Stevens, Ernest Evans	Md.	Stifer, William Warren, Jr.	
B.S. 1938, United States Naval Academy		A.B. 1939, Amherst College	Pa.
Stevens, Galloway	D.C.	Stigers, Donald William	N.J.
Stevens, Gene Casper	Tex.	Stiles, Meredith Newcomb, Jr.	
Stevens, Joan Isabella	Va.	A.B. 1946, Amherst College	Va.
Stevens, John Cameron	Mass.	Still, Joseph William	
Stevens, Joseph Leopold	Md.	M.D. 1936, University of Nebraska	
S.J.D. 1935, University of Vienna		M.P.H. 1941, Johns Hopkins University	Va.
Stevens, Lemuel Mussetter, Jr.	D.C.	Stiller, Joy Dancis	
B.S. 1933, United States Naval Academy		A.B. 1940, Hunter College	D.C.
Stevens, Mary Schoff	N.H.	Stilling, Richard Justesen	D.C.
Stevens, Nancy Reynolds	Va.	A.B. 1950, University of Maryland	D.C.
Stevens, Rhoda Eugenia	D.C.	Stillman, William Cripe	Ohio
Stevens, Sara Estelle	Pa.	Stilson, Lewis Francis	Ind.
B.S. 1948, Pennsylvania State College		Stilwell, Shirley Adaline	
Stevens, Willard Lamont	D.C.	Stingle, Howard Ellsworth	
Stevens, William Henry	Iowa	A.B. 1942, A.M. 1947 The George Washington University	D.C.
Stevenson, Blair Wayne	D.C.	Stinson, Laura Virginia	W.Va.
Stevenson, Donald Samuel	D.C.	Stinson, Willis Cullen	
Stevenson, William Benson	Md.	A.B. 1930, Marshall College	D.C.
Stewart, Allan Hugh	Calif.	Stirling, Edwin Tillman	D.C.
Stewart, Charles Todd, Jr.	Md.	Stirling, Theresa May	D.C.
A.B. 1946, A.M. 1948, The George Washington University		Stitelman, Joseph	
Stewart, Clark Berry	Va.	B.S. in E.E. 1934, Cooper Union	Va.
B.M.E. 1948, Clemson Agricultural College		Stitely, David Wesley	Va.
Stewart, David Alfred, Jr.	Miss.	B.S. 1949, Pennsylvania State College	Va.
Stewart, Elijah King	Okla.	Stith, James Logan	Va.
Stewart, Francis Clement	Pa.	Stober, Alfred Karl	D.C.
Stewart, Francis John	Pa.	Stockard, Charles Geer	Okla.
A.B. 1948, West Virginia University		Stockett, Clyde Norman	Va.
Stewart, Henry	Nev.	Stockstill, Louis R.	Ga.
A.B. 1948, University of Nevada		Stockton, Lorraine Maley	
Stewart, Howard Nauva	Va.	Stofko, Stephen James, Jr.	Va.
Stewart, Inez Gertrude	Va.	B.S. 1949, University of Maryland	Fla.
Stewart, Jonas Hartsell	D.C.	Stogsdill, Marion Russell	Pa.
B.S. 1949, Alabama Polytechnic Institute		Stokes, James Arthur	
Stewart, Laddie Joseph	Pa.	Stolarski, C. Robert	
A.B. 1949, West Virginia University		A.B. 1948, A.M. 1949, The George Washington University	S.C.
Stewart, Louise Edna	Mass.	Stoll, Ervin Wightman	
A.B. 1949, Boston University		B.S. 1947, LL.B. 1948, University of South Carolina	N.C.
Stewart, Mildred Letitia	N.C.	Stoll, Maurice Schofield	D.C.
Stewart, Paul	Md.	Stoll, Walter Arthur	D.C.
Stewart, Robert Allan	D.C.	Stoltzfus, William Alfred Jr.	Md.
Stewart, Robert Malcolm	Va.	Stolwein, Walter	
B.S. 1947, California Institute of Technology		B.S. 1937, College of the City of New York	D.C.
Stewart, Rodney Ward	D.C.	Stolworthy, Harvey Leigh	N.Y.
A.B. 1933, Carleton College		Stone, Arthur	
A.M. 1934, University of Chicago		B.M.E. 1948, College of the City of New York	Va.
Ph.D. 1938, Harvard University		Stone, Barbara Nell	Tenn.
Stewart, Walter Burton	D.C.	Stone, Bernice Priscilla	D.C.
Stewart, William Alexander	N.Y.	Stone, Betty Barbara Trump	Tenn.
B.Met.E. 1949, Rensselaer Polytechnic Institute		Stone, Bryce Douglas, Jr.	N.Y.
		Stone, Burton Francis	D.C.
		Stone, Clyde	



Stone, Frank Taylor, Jr.	Va.	Strand, Henry Vernon	D.C.
Stone, Gregory King	D.C.	B.S. 1939, College of William and Mary	
Stone, Helen Seegar	Ind.	B.E.E. 1942, University of North Carolina	
A.B. 1916 Northwestern University		Strasser, Noel Faine	Ky.
A.M. 1949, The George Washington University		Stratman, Mildred Marie	D.C.
Stone, James Robert	D.C.	Stratton, Clifton Jairus, Jr.	Kans.
A.B. 1949, The George Washington University		A.B. 1941, Dartmouth College	
Stone, John Boyden	D.C.	LL.B. 1947, Yale University	
Stone, Joseph Jack	D.C.	Stratton, Eugene Aubrey	Mass.
Stone, Margaret Ann	W.Va.	Stratton, Lawrence	N.Y.
Stone, Robert Charles	N.Y.	A.B. 1943, The George Washington University	
Stone, Robert Oliver	Md.	Stratton, Lydia Anne	Kans.
Stone, Rose Louise	W.Va.	A.B. 1944, Wellesley College	
A.B. 1947, The George Washington University		LL.B. 1947, Yale University	
Stone, Rose R.	Ohio	Straub, Josephine Towler	D.C.
Stone, Stephen Noel	N.Y.	Straub, Robert Lee	Va.
A.B. 1948, Brooklyn College		Straus, Alma Fleur	D.C.
Stone, Virginia Greer	Md.	Strauss, Betty Farber	N.Y.
Stone, Waleta Mae	Okla.	Strauss, Iris May	D.C.
A.B. 1949, Oklahoma Agricultural and Mechanical College		Strawbridge, Lawrence William	D.C.
Stone, Walter Kersten	Nebr.	Strawbridge, Phyllis Jeane	D.C.
Stonebraker, Dan	N.Y.	Streb, Doris Baldwin	D.C.
A.B. 1947, University of Rochester		Streib, Samuel Stephen	Colo.
Stonebraker, Jean Ross	N.Y.	Streitt, Burnett Irving	Pa.
A.B. 1947, University of Rochester		Streinz, Clare Julia	
Stoneman, Patricia Ray	Wis.	LL.B. 1949, The George Washington University	
Stoner, James Reist	Pa.	Strickland, George Gregory	D.C.
B.S. 1949, Franklin and Marshall College		Strickland, Lawrence Gordon	Va.
Stoner, Merle McLaughlin	Pa.	A.B. 1947, The George Washington University	
Stoops, Richard Eugene	Wash.	Strickler, Richard Gahagan	Va.
Stopak, Jacob Henry	D.C.	A.B. 1932, Pennsylvania State College	
B.S. 1949, Georgetown University		Strickman, Louis	Va.
Stoppelli, Louis Francis	N.J.	A.B. 1948, The George Washington University	
Stork, Creighton Mitchell	S.C.	Strieby, Francis Alvin	D.C.
A.B. 1949, College of Charleston		Strieby, LaRue Thomson	D.C.
Storke, Lois Maribelle	Va.	Stringham, Gale Smedley	Md.
Stormont, James Russell	Wis.	Strnad, Joseph John	Nebr.
Stotler, Herbert Jennings	Va.	Strojny, Julius Steven	Md.
Stotts, Johnnie Muri	D.C.	Strom, Elsie Christine	Wash.
A.B. 1949, Stephen F. Austin State Teachers College		Strong, Corrin Peter	D.C.
Stouck, Herbert Alexander	D.C.	A.B. 1948, Yale University	
B.S. 1949, University of Maryland		Strong, Ernestine Cameron	Canada
Stouffer, Edwin Immell, Jr.	D.C.	Stronski, Gerald Edward	Mich.
Stout, Charles Wilson	Fla.	Strother, Calvin Arnold	Okla.
Stout, Curtis Montague	Ohio	A.B. 1947, Harvard University	
Stout, Herald Franklin	Md.	Strother, Greenville Kash	Va.
Stout, Jean Elizabeth	Md.	B.S. 1943, Virginia Polytechnic Institute	
Stout, Wayne Howard	Md.	Strother, Samuel Lee	W.Va.
Stovall, Dorothy Ruth	S.C.	Stroud, Doris Lucia	Mass.
A.B. 1949, The George Washington University		A.B. 1949, The George Washington University	
Stovall, Milton Alva	Ala.	Stroud, George Luhrs	Va.
Stoyanoff, Stephen	Pa.	A.B. 1941, Stanford University	
Stoyanov, Sam	Ohio	Stroupe, Lawson S.	Va.
A.B. 1948, The George Washington University		Stroupe, Ray McKinley	Va.
Strachman, Philip	N.Y.	Struble, Alden Herman	D.C.
B.B.A. 1941, College of the City of New York		A.B. 1930, A.M. 1932, University of Michigan	
LL.B. 1949, Georgetown University		Struble, Hazel Elizabeth	Md.
Strahan, John Barwick	La.	Struckman, Christine Helene	Calif.
A.B. 1935, Louisiana State University		Strum, Joseph Franklin	Va.
Straight, Belinda Crompton	Va.	Strupp, Hans Hermann	D.C.
Strain, Howard Alden	D.C.	A.B. 1945, A.M. 1947, The George Washington University	
Strain, Mary Charlotte	Va.		



Strupp, Werner	D.C.	Sullivan, Marchetta Nicholson	D.C.
A.B. 1949, The George Washington University		Sullivan, Nancy Ruth	D.C.
Struthers, Melvin, Jr.	Iowa	Sullivan, Palmer Wallace	D.C.
Stryker, Philip Fitzhugh	N.J.	Sullivan, Patrick Gerald	Ten.
Stuart, Fred Wohlwend	Va.	B.S. in M.E. 1940, College of Mines and Metallurgy	Md.
Stuart, Jasper Edwin	Wash.	Sullivan, Robert Maurice	D.C.
Stuart, Kenneth Earl	Ind.	Sullivan, Robert Parker	Va.
Stuabbs, Diana Thyrza Margaret	Md.	Sullivan, Samuel Alexander	
Stubbs, Eugene Wilson	Ala.	B.S. 1935, Pennsylvania State Teachers College, Edinboro	D.C.
Stubbs, Robert Sherwood II	Ala.	Sullivan, Thomas Joseph	N.Y.
A.B. 1942, University of Alabama	D.C.	Sullivan, Thomas Vincent	
Stucke, Adela Leona		A.B. 1942, New York University	D.C.
A.B. 1941, The George Washington University		Sullivan, Vivian Judy	Md.
Stuckey, John Richard	D.C.	Sullivan, William Franklin	D.C.
Stuckey, Mary Lucia	S.C.	Sultan, Shirley	D.C.
Studds, Granville Murray	D.C.	Sumby, William Hopkin	Va.
Stull, Elizabeth Dornan	D.C.	A.B. 1942, University of Connecticut	
Stultz, Arnold Victor	Md.	Summerlin, Virginia Vandergrift	
Stultz, Norman Frederick	Mass.	Summers, Charles Russel	
Stultz, Travers David	Md.	A.B. 1936, A.M. 1938, State College of Washington	D.C.
B.S. 1948, St. Louis University		Summers, Edward Lee	Va.
Stultz, Verle Voll	Mass.	Summers, George Nixon	Va.
Stump, Charles Albert	W.Va.	Summers, Gerald Preston	D.C.
A.B. 1948, University of Pennsylvania	Md.	Summers, Leonard	D.C.
Sturtevant, Alderic Clarence		Summers, Mary Jane	D.C.
A.B. 1949, The George Washington University		Summers, Robert Allen	D.C.
Stutz, Frank August	D.C.	Summers, Mona D.	Minn.
B.S. 1931, Lehigh University		Sumner, Doris Mae	W.Va.
A.M. 1940, The George Washington University		Sumney, Ara Long	
Styles, Michael Hogan	Va.	L.L.B. 1940, University of Richmond	D.C.
A.B. 1947, A.M. 1949, University of Virginia		A.B. 1946, West Virginia University	
Suber, James Whitley	D.C.	Sun, I. Shuan	
B.S. 1928, Mississippi State College		A.B. 1942, St. John's University, Shanghai	Ill.
A.M. 1930, The George Washington University		Sunderman, Helen Lorraine	Va.
Subramanian, P. N.	India	Sunderman, Shirley Keuthan	Ill.
Sudduth, Herschel Cochran	D.C.	Sundstrom, Harold Walter	Philippines
B.S. 1937, M.S. 1938, A.B., B.S., Med. 1940, M.D. 1942, University of Oklahoma		Suntay, Aurora	Iowa
Sudduth, Homer Leon, Jr.	D.C.	Supinski, John	
Sudhalter, Treva Rose	Va.	Supper, Frances Herrald	D.C.
A.B. 1947, The George Washington University		B.S. 1941, State University of Iowa	D.C.
Sudol, Elvina Joan	Mass.	Suppes, Joan Louise	D.C.
Sugar, Harold Samuel	D.C.	Surasky, Bernard Arthur	
A.B. 1949, The George Washington University		Sures, Charles Stanley	
Sugg, William Leonard	N.C.	A.B. 1947, L.L.B. 1949, The George Washington University	D.C.
Suits, Francis Earl	N.Y.	Sures, Rita Stearns	D.C.
Sukalo, Charles	N.J.	Surgen, Raymond Charles	D.C.
B.S. in Ch.E. 1944, Newark College of Engineering		Surowitz, Irma Selma	N.Y.
Sukolow, Helen	Pa.	Susinno, Anthony	N.Y.
Sullins, Van Buren	D.C.	Susser, Arthur	
Sullivan, Arthur Victor, Jr.	D.C.	Sussholz, Leonard B.	
Sullivan, Charles Xavier	R.I.	A.B. 1948, The George Washington University	Siam
Sullivan, Craig Kiefer	D.C.	Suthayakhom, Wichet	Md.
Sullivan, Eugene Francis	Md.	Sutherland, Dorothy Gaile	Va.
B.S. 1948, The George Washington University		Sutherland, Henry Clifton	Ariz.
Sullivan, Francis John	Md.	B.S. 1942, Virginia Military Institute	
B.S. 1942, University of Pittsburgh		Sutherland, John Wallace	Ohio
Sullivan, Henry Earl	D.C.	B.S. 1942, United States Coast Guard Academy	W.Va.
Sullivan, John	Mass.	Sutherland, Julian Hoyt	Ill.
Sullivan, John Christian	Md.	Suttle, Alvin Douglas	
Sullivan, Joseph Raymond, Jr.	N.J.	Suttle, Herman Judson	
B.S. 1947, Georgetown University		Sutton, Roger I.	Nev.
		B.S. 1941, Bradley University	
		Suwerkerp, Maryjo	
		A.B. 1948, The George Washington University	



Svasti, Yudhisthira A.B. 1940, Cornell University	Siam	Swift, Charles H. B.S. 1931, Springfield College	Va.
Svec, Alice Virginia A.B. 1948, University of Minnesota	Minn.	Swift, George Warren	Va.
Swafford, Frank Hendrick	D.C.	Swift, John Stewart	D.C.
Swafford, Tommy Vaughn	D.C.	Swiggard, Edward Morris	D.C.
Swafford, Welby Roland	D.C.	Swingle, Ruth Emilie	Pa.
Swain, Francis Elton	Va.	Switzer, Margaret Long A.B. 1946, The George Washington University	D.C.
Swain, James Joseph	Md.		
Swain, William Morrison	N.Y.	Switzer, Walter Edwin M.S. 1941, University of Illinois	Ill.
Swannick, James Roger	Ill.	Swortzell, Lowell Stanley	D.C.
Swann, Carter Holman	D.C.	Sworzyn, Marilyn Davis	D.C.
Swann, Isabelle Ivey	N.C.		
Swanner, Joe Bailey A.B. 1949, Howard Payne College	Tex.	A.B. 1943, Connecticut College A.M. 1948, The George Washington University	
Swanson, Bert Elmer	Calif.	Sydor, John	D.C.
Swanson, Elizabeth Louise A.B. 1947, Carleton College	Idaho	Sylvester, Eugene Paul	N.J.
Swanson, Henry John	Ill.	Sylvester, Malcolm Duncan	La.
Swanson, Jeanne Fiske	Fla.	B.S. 1925, United States Naval Academy J.D. 1939, The George Washington University	
Swanson, L.S., University of Pennsylvania	Minn.		
Swanson, Lawrence M.	Mass.	Sylvester, Robert W.	Va.
Swanson, Ragnar Gosta	D.C.	Symmes, Courtland	N.C.
Swanson, Virginia Anne	Va.	Symons, James Henry	D.C.
Swanson, Charles William	Pa.	Synan, Anne Rates	Pa.
Swartz, Christian LeFevre B.S. 1937, University of Pennsylvania		Synovec, Bernard Francis	Md.
Swartz, Dorothy Lucille B.S. 1946, Temple University	Iowa	Szanyi, William Leo	N.J.
Swartz, Eugene A.B. 1948, The George Washington University	Md.	Sze, Churchill Chia-Chu	China
		Szoka, Charles Eugene	Pa.
Swadiburi, Preecha	D.C.	Szokolszky, Joseph Steren	N.J.
Swayze, Roy Albert	Va.	Szollosi, Etienne B.S. 1929, Budapest University M.D. 1936, Sorbonne University	D.C.
Sweebe, Edward Chiles	Ill.	Szwed, Clarence Francis	D.C.
Sween, John	Md.	Szymanowski, Norbert Harold	Wis.
Sweeney, Barbara Marion	Va.	Szymczak, Sigismund Casimir	Mass.
Sweeney, James Charles, Jr. B.S. 1948, University of Denver	Colo.		
Sweeney, James Stevens A.B. 1949, University of Virginia	Md.	T	
Sweeney, Joseph Modeste LL.B. 1948, Harvard University	D.C.	Tabibi, Abdul Hakim A.B. 1945, Kabul University of Afghanistan	D.C.
Sweeney, Robert Thompson A.B. 1941, University of Kentucky	Va.	Tabler, Grayson Brust A.B. 1948, The George Washington University	W.Va.
Sweeney, Stuart Thomas Hackstaff A.B. 1949, Upsala College	N.J.		
Sweeney, Vincent Albert B.S. 1935, United States Naval Academy	D.C.	Tabor, Frederick Hebard A.B. 1949, Harvard University	D.C.
Sweeney, Vincent Hilary B.S. 1949, Boston College	Mass.	Taffet, Hana A.B. 1949, The George Washington University	N.Y.
Sweeney, William Finbar	D.C.		
Sweet, Geen	Calif.	Tafoya, Ben	Md.
Sweet, John Manko	Pa.	Taft, Gordon Lewis B.S. in Eng. 1942, Iowa State College of Agriculture and Mechanic Arts	Md.
Sweet, William Luther	R.I.		
Sweitzer, Henry Becker B.S. 1941, United States Naval Academy	Pa.	Taggart, Barbara Jean	D.C.
Swell, Leon B.S. 1948, College of the City of New York	N.Y.	Taghavi, Ahmad	D.C.
M.S. 1949, The George Washington University		Tastle, Manuel Alfonso	D.C.
		Taishoff, Albert Edward	D.C.
Swenarton, Robert Owen	D.C.	Tait, Andrew	Va.
Sweeney, Roy Eugene, Jr.	N.J.	Tait, Reid Clifford	Md.
Swenson, Dale Abbott	Utah	Tait, Theresa Marguerite	Va.
Swenson, J. Elmore B.S. 1940, University of Utah	Va.	Takabuki, Alice Sumiko	Hawaii
Swenson, Nella Jean	D.C.	Takacs, Theresa Marie	N.Y.
Swetnam, George Dayton	D.C.	Takash, John	Ind.
Swett, Charles	Okla.	Takemoto, Kaname B.S. 1949, The George Washington University	Hawaii
		Talbert, Burch Franklin	D.C.



Talbot, Charles Edward, Jr.	Va.	Tatum, Zella F.	Tex.
A.B. 1948, American University		B.S., A.B. 1940, Texas Christian University	
Talbott, Elizabeth Jeannette	D.C.	Taub, Mortimer	Md.
Talbott, Orwin Clark	Calif.	Ph.D. 1935, University of California	D.C.
Talbott, Philip	Calif.	Tauber, Leonard Murray	D.C.
Tallent, Alice Lucille		Tauber, Lilly Katherine	
B.S. 1936, University of Nebraska		A.B. 1947, Peter Pazmany University, Budapest	N.Y.
Talley, Betty Jane	Md.	Taubman, Catherine	
Talley, James Staton	Va.	A.B. 1947, New York University	Va.
A.B. 1949, The George Washington University		Tavener, Frank Brennan	
Talley, John Heyward	S.C.	LL.B. 1949, The George Washington University	D.C.
Talley, Marilyn Hunter	Va.	Taylor, Ada Elizabeth	
Tamer, Joseph Jacob	D.C.	A.B. 1949, The George Washington University	D.C.
Tamson, Robert	D.C.	Taylor, Andrew Eustace	Ga.
Tan, Chuan Yao	Siam	B.S. in M.E. 1947, Tufts College	D.C.
Tan, Pai-Men	D.C.	Taylor, Brown	Md.
Tan, Toh-Leng	D.C.	Taylor, Charles Elmer	
Tanck, Roland Henry	Wis.	Taylor, Charles Elmer, Jr.	D.C.
A.B. 1939, University of Wisconsin		B.S. 1948, University of Maryland	
A.M. 1948, The George Washington University		Taylor, Daniel Gerald	D.C.
Tang, Tze-Tung	China	A.B. 1949, Salem College, W.Va.	Ill.
B.S. 1949, St. Mary's College, Minn.		Taylor, David Howard	Tex.
Tankersley, James David, Jr.	Ark.	Taylor, Donald Kent	
A.B. 1948, University of California	Fla.	Taylor, Dorothy Jane	
Tanksley, Laurence Dempsey	Va.	A.B. 1943, Rice Institute	
Tanneberger, Walter Samuel	Ill.	M.S. 1947, Iowa State College of Agriculture and Mechanic Arts	D.C.
Tannenbaum, Muriel Joyce	Idaho	Taylor, Dyer Justice	D.C.
Tanner, Howard H.		Taylor, Edward Rathbun	Okl.
B.S. 1949, Utah State Agricultural College		A.B. 1947, Lafayette College	Ga.
Tanner, Lloyd John	Iowa	Taylor, Eldon Donivan	Ga.
Tanner, Seymour William	D.C.	Taylor, Francis Gordon	
Tanner, Thomas Louis, Jr.	Va.	Taylor, Frank, Jr.	D.C.
Tannhauser, John Ulrich	Md.	A.B. 1935, Mercer University	D.C.
Tanos, James Dimitri	Pa.	Taylor, Frank Jordon	Va.
A.B. 1949, University of Pennsylvania		Taylor, George Oliver	Md.
Tanzer, Francis Sherwood	N.Y.	Taylor, Grizel Rosemary Frances	
A.B. 1949, Syracuse University		Taylor, Harold Emory	
Taphorn, Joseph Bernard	Ill.	Taylor, Harry Earl, Jr.	
B.S. in Agri. 1943, University of Illinois		A.B. 1948, The George Washington University	Conn.
B.S. in Eng. 1949, The George Washington University		Taylor, Harry Hall	Fla.
Taquey, Ruth McVitty	D.C.	Taylor, Herbert Bradley	Ark.
A.B. 1929, Bryn Mawr College		Taylor, Ira White	
Tarpy, Joan Arc	Va.	A.B. 1948, University of Arkansas	Va.
Tartaglino, Andrew Charles	R.I.	Taylor, Irving Henry, Jr.	
B.S. 1949, Georgetown University		A.B. 1949, The George Washington University	Ky.
Tarver, Mary Eugenia	Ga.	Taylor, James D.	
Tashiro, Jane Miako	Fla.	A.B. 1948, Western Kentucky State Teachers College	Md.
Tashjian, Lee Charles	Md.	Taylor, John Alvin	Okl.
A.B. 1949, The George Washington University		Taylor, John Frank	
Taske, Morton Jerome	D.C.	A.B. 1936, LL.B. 1939, University of Oklahoma	
Tassoney, Joseph Patrick	Pa.	Taylor, John Henry	Va.
B.S. 1949, University of Pittsburgh		Taylor, John Perry	Va.
Tatarsky, Walter	D.C.	Taylor, Kenneth Morrison	Va.
A.B. 1949, The George Washington University		Taylor, Lela Sims	
Tate, David Bramblett	D.C.	B.S. 1928, Tennessee Agricultural and Industrial State College	Va.
Tate, Marian Keefer	Md.	Taylor, Lillian Pearl	S.C.
A.B. 1925, The George Washington University		Taylor, Marvin Elliott	Md.
B.D. 1938, Chicago Theological Seminary		Taylor, Mary Landon	Calif.
Tatelman, Gretchen Blumberg	D.C.	Taylor, Maurice Francis Walker	
Tatom, Mary Helen	N.J.	B.S. 1939, Purdue University	Md.
A.B. 1947, The George Washington University		A.M. 1940, Indiana University	D.C.
A.M. 1949, Catholic University of America		Taylor, Paul Harold	
		Taylor, Paul Strother	



Taylor, Quay Franklin	Md.	Terry, Leslie Dean	Va.
B.S. 1934, Pennsylvania State College		Terry, Richard Allan	D.C.
Taylor, Ralph Edward	Md.	A.B. 1943, University of Notre Dame	
Taylor, Richard Orme	D.C.	Teske, Elaine Theodora	Wis.
Taylor, Robert Leslie	N.Y.	Tevelow, Frank Louis	N.J.
A.B. 1941, Syracuse University		Tew, Mary Elizabeth	Va.
Taylor, Rufus Lackland	Md.	Tew, Sarah Elizabeth	N.C.
B.S. 1933, United States Naval Academy		Thacik, Margaret Ann	Ohio
Taylor, Ruth	Md.	Thackara, James Justin	D.C.
A.B. 1914, College of William and Mary		A.B. 1936, Harvard University	D.C.
Ed.M. 1936, Temple University		Thacker, Elizabeth Susan	S.C.
Taylor, Samuel de Guyon	Conn.	Thackston, Carl Richard	
Taylor, Shelton Billy	Va.	A.B. 1949, Furman University	D.C.
Taylor, Theodore Higgins	Ill.	Thada, Grace Augusta	Va.
Taylor, Vernon Edgar	Md.	Thagard, Edgar Kent	Va.
Taylor, Warren Francis	La.	Thaler, Milton	
Taylor, Wilbur Asher	Md.	A.B. 1949, The George Washington University	Pa.
Taylor, Willford Cassidy, Jr.	D.C.	Thaler, William David	D.C.
A.B. 1947, Lafayette College		Thalis, Paul Salvatore	D.C.
Taylor, William Charles	Pa.	Tharp, Mary Ann	D.C.
B.S. 1941, University of Pennsylvania		Tharpe, Clyde Coalson	La.
Taylor, William Russell	Md.	Thatcher, Dora Sutcliffe	
Teagle, Earnest Howard	D.C.	A.B. 1941, Tulane University	
Teague, Harold Hamner	D.C.	A.M. 1942, University of Michigan	Md.
Teaze, Robert Stewart	Md.	Thawley, Charles Brooks	D.C.
A.B. 1949, Dartmouth College		Thayer, Harry Homer	N.J.
Tebeau, John Peter	R.I.	Thayer, Luke L.	Pa.
Techner, Martin Richard	Va.	Theiberger, Frederick	Ky.
Teczar, Elizabeth Ann	Mass.	Theobald, Frederick H.	Mass.
Teczar, Veronica Helen	Mass.	Theobald, Ursula McEnroy	D.C.
Teed, Charlotte	D.C.	Theophilos, George John	Mass.
A.B. 1928, University of Michigan		Therault, Frederic Russell	
B.S. 1934, Wilson Teachers College		B.S. 1938, M.S. 1940, Ph.D. 1942, University of Massachusetts	Va.
Teehan, George Edward	D.C.	Therault, Harold John	Va.
A.B. 1940, Brown University		Therault, Rene John	Va.
Teeter, Virginia Joyce	D.C.	Theroux, George Frederick	
Teeter, Walter William	Va.	A.B. 1941, University of Utah	Iowa
Teitelbaum, Louis	D.C.	Thevenin, Esther Blanche	Md.
Teitelbaum, Sara	D.C.	Thibadeau, Andrew Francis	
Telchin, Stanley Shay	Md.	A.B. 1948, The George Washington University	D.C.
Tellefsen, Carl Robert	D.C.	Thiel, Orin S.	
B.S. 1933, United States Naval Academy		A.B. 1935, J.D. 1937, University of Chicago	Md.
Teltser, Harold Robert	N.J.	Thielemann, Henry Bien	D.C.
Temin, Adele	D.C.	Thomas, Arthur Russell	
Tendler, Arthur Charles	D.C.	B.S. in M.E. 1946, Virginia Polytechnic Institute	Va.
Tenenbaum, Henry	D.C.	Thomas, Augustus Howell, Jr.	
Ph.D. 1942, Aix-Marsalle, France		B.S. 1943, Virginia Polytechnic Institute	Pa.
Tennant, Joseph	D.C.	Thomas, Betty Jane	Mo.
B.Com. 1948, University of Cape Town, South Africa		Thomas, Carl William	Va.
Tennant, Suzanna Rosalie	D.C.	Thomas, Charles Buddy	N.J.
A.B. 1947, University of the Witwatersrand, South Africa		Thomas, Charles Lawrence	D.C.
Tennant, William Harrison	Fla.	Thomas, Earl Arunah	
A.B. 1949, La Salle College		A.B. 1949, The George Washington University	Va.
Tennant, William Samuel, Jr.	S.C.	Thomas, Earl Griffith	Va.
A.B. 1948, The Citadel		Thomas, Eleanor Birchard	
Tennery, Billy Jack	Md.	B.S. 1941, University of Massachusetts	Md.
A.B. 1949, The George Washington University		Thomas, Ernest Eugene	Conn.
Tennyson, Georg	D.C.	Thomas, Eugene Bray, Jr.	
Tepper, Martin Samuel	Va.	A.B. 1943, Wesleyan University	Fla.
Terresen, Irene Thelma	Va.	L.L.B. 1949, University of Virginia	
Terl, Norma	Va.	Thomas, Frane Vesta	
Terrell, Jane Kathryn	Conn.	A.B. 1943, The George Washington University	Wis.
Terrett, Hunter Luzader	Va.	Thomas, Gordon Frank	Md.
Terrett, Stuart Thornton	Va.	Thomas, Grace Ruth	
Terry, George Mulford	Md.		
A.B. 1947, The George Washington University			



Thomas, Gregory	Md.	Thompson, Edwin	Kans.
Thomas, Henry Archer	D.C.	Thompson, Edwin Strock	Pa.
Thomas, Howard Adams	Va.	B.S. 1933, Tri-State College	D.C.
Thomas, Howard Francis	D.C.	Thompson, Elizabeth Anne	D.C.
Thomas, James	Md.	Thompson, Emma Louise	Va.
B.S. 1948, University of Maryland	Va.	Thompson, Evelyn Lee	Va.
Thomas, James Alfred		B.S. 1941, Southeast Missouri State College	D.C.
B.S. 1932, United States Naval Academy	Ky.	Thompson, Frank Revell	N.Y.
Thomas, John Breckenridge, Jr.		Thompson, Garland Parnell	Ark.
A.B. 1934, Western Kentucky State Teachers College		Thompson, Geoffrey	Md.
A.M. 1940, Indiana University	Idaho	Thompson, George Lawrence, Jr.	Md.
Thomas, John James		Thompson, George Richard	Md.
B.S., M.S. 1943, University of Idaho		B.S. 1948, Loyola College	D.C.
B.S. 1948, University of Kansas		Thompson, Harry Francis	D.C.
Thomas, Joseph Melvin	Md.	Thompson, James Douglas	Nev.
Thomas, Kate Wheat	Va.	Thompson, James Elmer, Jr.	Va.
A.B. 1943, Bryn Mawr College	Va.	A.B. 1949, University of Maryland	Va.
Thomas, Luther Austin	Va.	Thompson, James Henry	Va.
Thomas, Mark Poulton	D.C.	Thompson, John Manley	N.C.
Thomas, Myrtle		Thompson, Joseph Fisher, Jr.	D.C.
B.S. 1932, Radford College	D.C.	Thompson, Judith Covington	D.C.
Thomas, Orville Milton		Thompson, Lane Storer	Fla.
A.M. 1940, Colorado State College of Education	Pa.	Thompson, Laura Josephine	Ga.
Thomas, Paul Augustus, Jr.		Thompson, Louis Clifford	
B.S. 1947, The George Washington University		Thompson, Lucius Fred	
Thomas, Paul DeLoren	Va.	LL.B. 1949, The George Washington University	Va.
B.S. 1938, Central State College, Oklahoma		Thompson, Mary Lucille	Iowa
A.M. 1940, University of Oklahoma	Ind.	Thompson, Mary Warren	
Thomas, Pauline	Fla.	Thompson, Matthew Charles	D.C.
Thomas, Ralph Leslie		B.S. 1949, Iowa State College of Agriculture and Mechanic Arts	Va.
B.E.E. 1947, University of Louisville	D.C.	Thompson, Owen Bruyere	Va.
Thomas, Raymond Carrington	D.C.	Thompson, Philip Adams	Mo.
Thomas, William Bates	Mass.	Thompson, Ralph Franklin	Pa.
Thomas, William Francis	Oreg.	Thompson, Robert Earl	Va.
Thomas, William Franklin		Thompson, Robert Lee	Va.
B.S. 1948, University of Oregon	D.C.	Thompson, Russell Claude, Jr.	
Thomas, William Kindred	D.C.	Thompson, Sara Anne	Md.
Thomasson, Mary Magdalene	Va.	B.S. 1946, Madison College	
Thompden, Richard Gage	D.C.	Thompson, Stanwood	Md.
Thompson, Albert Lacy	D.C.	A.B. 1949, State College of Washington	
Thompson, Allan Glasgow		Thompson, Thomas Carlton, Jr.	D.C.
B.S. in E.E. 1942, Montana State College	Va.	B.S. 1948, University of Pennsylvania	Va.
Thompson, Annie Upchurch		Thompson, William Arthur Lathrop	
A.B. 1932, East Carolina Teachers College	Pa.	Thompson, William Blake	Pa.
Thompson, Arthur Brown, Jr.	Md.	A.B. 1947, The George Washington University	D.C.
Thompson, Ben Hanford		Thompson, Willis Clayton, Jr.	S.D.
B.S. in Ed. 1942, Rutgers University	Mass.	Thompson, Winifred Grace	N.Y.
Thompson, Beverly Ann	Md.	Thomson, Dona Jean	D.C.
Thompson, Blaine Clairmont		Thomson, Eugene	Va.
A.B. 1946, Tulane University	Mo.	Thomson, Malcolm Stuart	Calif.
Thompson, Carl Franklin	D.C.	Thomson, Robert Lee	D.C.
Thompson, Colin Edward, Jr.	W.Va.	Thorington, Harry Sumpter	D.C.
Thompson, Conrad Warden		Thorndyke, Myron Samuel	Va.
B.S. 1948, Marshall College	Va.	Thorne, Charles Harry, Jr.	D.C.
Thompson, Curtis Eugene		Thorne, Joseph Phillip	
A.B. 1940, Concordia College	D.C.	Thorniley, Robert Miller	D.C.
Thompson, Delores Mae	D.C.	LL.B. 1949, The George Washington University	
Thompson, Dorothy Morse	Md.	Thornton, Luther Junior	N.C.
Thompson, Edgar Hall, Jr.		A.B. 1950, James Millikin University	N.H.
B.S. 1936, United States Military Academy	Md.	Thornton, Percy, Jr.	Va.
Thompson, Edna Liela	Va.	Thornton, Susan Leona	D.C.
Thompson, Edward Mathew		Thornton, William Milo	
B.S. 1920, United States Naval Academy		Thorpe, Emmet Joseph	Va.
M.S. 1928, Columbia University		B.S. 1948, Western Reserve University	Md.
		Thorpe, Jacob Oliver	Wash.
		Thorpe, Pauline	
		Thorson, Wilbur Lee	



Thrasher, Ralph Hampton	Md.	Todd, Eula Catherine	Maine
Threadgill, Eugene Earl	D.C.	Todd, James Edward	Ill.
A.B. 1940, University of Florida		B.S. 1949, St. Ambrose College	
LL.B. 1944, Georgetown University		Todd, Troy Mitchell	Md.
Threadgill, William James	Miss.	Todd, Vernon Richard	Md.
A.B. 1947, University of Mississippi		Todd, William Henry	D.C.
Thrift, Sterling Reynolds	D.C.	Toft, Bergit	Iowa
Thrift, William Carroll	D.C.	Toleman, John Alfred, Jr.	D.C.
Throckmorton, Walter Jackson	Va.	Toline, Francis Raymond	Nebr.
Throne, Junior Arthur	Md.	Tollefsen, Charles William	D.C.
B.S. 1939, State Teachers College,		Tolley, Howard Elmer	Va.
Milwaukee		B.S. 1946, University of California	
Thuma, Jeremiah Absalom	Md.	Tolley, Marjorie Elizabeth	D.C.
Thurman, Dale Leonard	Va.	Tolliver, John Sheridan	Md.
B.S. 1939, University of Nebraska		Tolliver, Robert James	S.D.
Thurman, John Nelson	Ariz.	Tolson, Evelyn Hurd	D.C.
B.S. 1949, Georgetown University		Tolson, Raymond Lee	Va.
Thurmond, Cornelius Brooks, Jr.	Ga.	Tolson, Robert Hough	D.C.
Thurston, Virginia Sweeney	W.Va.	Tomasick, Ruth Alice	Pa.
A.B. 1925, West Virginia University		Tomchick, Robert E.	Pa.
Thye, Carl John, Jr.	D.C.	Tomkins, Leonard George	Va.
Tiches, Louis James	D.C.	Tomko, George Nicholas	Pa.
Ticknor, Laura Flohr	D.C.	Tompkins, John Ettinger	Va.
Ticknor, William Ormsby	N.C.	A.B. 1944, The George Washington	
Tickin, Howard Erwin	D.C.	University	
Tidwell, Ruth Bosey	D.C.	Tompkins, Virgil Everett	N.Y.
Tibbets, Richard Herbert	Md.	B.S. 1932, New York State Teachers	
Tibbets, Robert Freeland	D.C.	College, Albany	
Tibbitts, William John	D.C.	A.M. 1949, The George Washington	
Tibbitts, Robert Cash	Mo.	University	
Tibbott, David Winship	Va.	Toms, Stephen	Pa.
B.M.E. 1945, University of Virginia		Toner, Mary Cunningham	D.C.
Tiedman, John George	D.C.	Tong, Gordon Joseph	Calif.
Tighe, John Francis	Md.	Tong, Richard Koon Wong	Hawaii
Tighe, Paul Neuman	Pa.	Tonkin, Edward Eugene	Md.
Tiley, Edward Henry, Jr.	W.Va.	Tonkovic, Andrew Adolph	Ill.
A.B. 1948, West Virginia University		Tonty, Carl Joseph	Pa.
Tiller, Harvey Pollock	Va.	Toomey, John Samuel	Tenn.
Tilley, Emerson Scott	Md.	A.B. 1949, The George Washington	
Tillman, Murray	N.Y.	University	
A.B. 1944, Brooklyn College		Toomey, Thomas Joseph	D.C.
Tilmann, Alfred Albert	N.Y.	Toomey, William Joseph	D.C.
B.S. 1941, New York University		A.B. 1928, A.M. 1930, St. Louis	
Tilly, James Lewis	Colo.	University	
Tilton, John Snyder	Va.	Toompas, Charles Arthur	W.Va.
A.B. 1948, The George Washington		A.B. 1938, West Virginia University	
University		Tooter, Jean Rita	D.C.
Tilton, Vincent E.	Md.	Toothman, Byron Rimbe	W.Va.
Timmins, Joseph Edward, Jr.	Va.	A.B. 1946, Fairmont State College	
Timms, Edyth Alice	Va.	A.M. 1948, West Virginia University	
Timms, Molly Anne	D.C.	Toplitzky, Dorothy	D.C.
Tiongo, Dionisio Ciria Cruz	Philippines	A.B. 1944, Brooklyn College	
B.S.E. 1930, University of the		Topp, Mary Lucille	D.C.
Philippines		Topp, Max Edward	Conn.
Tippett, Esther Blouch	Va.	A.B. 1934, University of Pennsylvania	
A.B. 1929, Indiana State Teachers		Tor, Mildred Helen	D.C.
College		Torcaso, Roy Reed	Wash.
Tipton, Clarence Lee	D.C.	Torchin, Norman Gilbert	D.C.
Tipton, Wellstood White	Md.	Torgerson, Jean Tate	
Tisdale, Henry Edward	Va.	A.B. 1937, University of Wisconsin	
Title, Irwin	D.C.	Toro, Rafael Andres	Puerto Rico
Titone, Charles Franciscos	N.Y.	B.S.A. 1921, University of Puerto	
Tittington, George Frank	Md.	Rico	
Tittler, Ruby Bonita	D.C.	M.S. 1925, Cornell University	
Titus, Elijah White, Jr.	D.C.	A.M. 1935, Harvard University	
Tivnan, John Thomas, Jr.	Mass.	Torp, Mary Jane	S.D.
Diabar, Fusun	D.C.	B.S. in Ed. 1944, Northern State	
Tobias, James Howard	D.C.	Teachers College	
Tobin, Mary Iovantha	D.C.	Torrey, William Abner, Jr.	D.C.
Tobin, Patricia Ann	Mass.	Toth, Joseph	N.Y.
Tobin, Ralph Aloysius	Va.	Toth, Joseph Charles	D.C.
Toda, Kumao Kenneth	D.C.	B.S. 1931, United States Naval	
Todd, Douglas Dean	N.C.	Academy	



Toth, Joseph Ralph	Md.	Trettin, Harold Donald	D.C.
B.S. 1938, University of Minnesota		Treumann, Walter	Mo.
Tottle, Edward Loring	Maine	A.B. 1946, Washington University	
Touceda, Elena Consuelo	D.C.	A.M. 1948, University of Chicago	Tex.
Touma, Amelia Mary	D.C.	Trevino, Ernestine	
Tourangeau, Dolores Irene	D.C.	A.B. 1940, Texas College of Arts	
Tovser, Owen	Philippines	and Industries	Mich.
Tower, Everett Theodore	N.Y.	Trevisan, Edward Anthony	Mich.
Towne, Verna Steel	N.J.	Trezise, Carl Arthur	
B.S. 1924, University of Minnesota	Md.	A.B. 1942, University of Michigan	Ind.
Towner, George Crosby	Mont.	Tribbe, Richard Stewart	D.C.
B.S. 1924, United States Naval		Trible, William MacLohon	
Academy		A.B. 1943, Princeton University	D.C.
M.S. 1931, Carnegie Institute of		Trickett, Arthur Rolland, Jr.	D.C.
Technology		Trickett, George Waldeck	D.C.
Townsend, Alice Elizabeth	N.C.	Trigo, Carmen Belen	D.C.
A.B. 1949, University of North		Trimble, Mary Allan	Pa.
Carolina		Trimble, Sara Inez	
Townsend, Charles Eby	D.C.	A.B. 1946, Seton Hill College	D.C.
A.B. 1948, The George Washington		Trimble, South	
University		B.S. 1948, University of North	Va.
Townsend, Kathryn Marie Anna	D.C.	Carolina	Va.
Townsend, Marjorie Rhodes	D.C.	Tripp, Bonnie Bell	
Townsend, Robert Arnold	Va.	Tripp, Richard Carlton	
B.S. 1943, Harvard University		A.B. 1947, State University of	Va.
Townsend, Woodrow Emory	Md.	Iowa	N.Y.
Townshend, Harrison Sterling	Md.	Trippi, Robert Jefferson	
Townshend, John Benjamin	Md.	Trippi, Frank Thomas	Ill.
Towsley, M. Henrietta	N.Y.	A.B. 1949, Brooklyn College	
A.B. 1943, Mount Holyoke College		Triska, Ralph Francis	Md.
Toxen, Arnold Martin	D.C.	B.S. 1948, Purdue University	Va.
Tozier, Alvin Ozro	Maine	Tritabough, Kenneth Franklin	D.C.
Traband, Sara Lucille	Md.	Trites, Robert Thomas	D.C.
B.S. 1948, University of Maryland		Trittle, Richard Reed	Va.
Trachtman, Gilbert Marvin	N.Y.	Trittipoe, Howard Randolph, Jr.	D.C.
A.B. 1949, Brooklyn College	N.Y.	Trittipoe, William Jennings	
Tracy, John Joseph	N.Y.	Trittipoe, Edward Ernest	
Tracy, Patricia Alvine	Mo.	A.B. 1942, New Mexico College of	
Trail, Florence Ann	Pa.	Agriculture and Mechanic Arts	
Trail, Martha Bothwell	Kans.	LL.B. 1949, The George Washington	Md.
Trail, Mary Margaret	D.C.	University	Md.
Trail, Red Clinton	Wyo.	Tron, Charles Edmond	Va.
Trainer, Robert Frazer	Md.	Tron, Robert Augustus, Jr.	N.Y.
Trainham, Eliza Hunter	Va.	Troop, Glenwood Samuel, Jr.	Va.
B.S. 1928, College of William and		Troop, Harrison Donald	Va.
Mary	R.I.	Trotter, Margaret Primrose	D.C.
Trainor, George Edward, Jr.	Pa.	Trotter, Thomas Kenneth	N.Y.
Trainor, James Herbert	D.C.	Trought, Walter Kay, Jr.	D.C.
Trainor, Kenneth Edwin	Wis.	Trovato, Grace Mary	Va.
Traiser, Mabel Oakley	N.Y.	Truax, Allan Bishop	
Tralka, George Anthony		Truworthy, Orson William	
B.S. 1949, Georgetown University		B.S. 1936, Wilson Teachers College	D.C.
Transou, Lucile V.	D.C.	A.M. 1940, The George Washington	Va.
A.B. 1932, College of William and		University	R.I.
Mary	N.Y.	Truhe, Wallace Peter	
Trapp, Madge Irene	D.C.	Trumbo, Shannon Cromer	
Traupel, William Max	Va.	Trumbull, Robert Gay, Jr.	Ill.
Travaglini, Constance	Va.	A.B. 1949, The George Washington	D.C.
Travaglini, Vincent D.	D.C.	University	
Traver, Paul Patrick	Va.	Trumper, Mary Madeline	
Travis, Charles Christopher	Va.	Trundle, David	D.C.
Traylor, James Edward	D.C.	A.B. 1933, Western Maryland College	Va.
Traylor, Lawrence Milton	Ohio	Trussell, Galen Douglas	
Traynor, Raymond Patrick		Tryon, Joseph Lee	Ind.
B.S.S. 1948, John Carroll University	Va.	A.B. 1949, University of Minnesota	
Treadway, Leon Wesley	Md.	Trytko, Bert Peter	China
Treacle, Hugh Charles		B.S. 1949, Georgetown University	D.C.
Treanor, William Edward	D.C.	Tsai, You-Chi	D.C.
Tremayne, Leonard Edward	Calif.	Tschaekofske, Alfred	D.C.
Trembelas, John Peter	D.C.	Tseng, Maurice Hsien-pin	Maine
Trentacosti, Rosario Charles	N.Y.	Tsumides, James Leonidas	



Tuchmann, Norman A.B. 1948, The George Washington University	Conn.	Turner, Mary Joy Turner, Myrtle Hearn A.B. 1946, The George Washington University	D.C. D.C.
Tucker, Betty Kimbrough Tucker, Clyde Davis Tucker, Harry Jackson, Jr. Tucker, Lyman Ray A.B. 1949, The George Washington University	Va. Vt. D.C. Tex.	Turner, Netta Elizabeth Turner, Ralph Edward Turner, Randall George Turner, Richard Crawford Turner, Sarah Anne A.B. 1931, Northwestern State College of Louisiana A.M. 1935, Louisiana State University	D.C. D.C. D.C. Tenn. La.
Tucker, Nancy June B.S. 1949, The George Washington University	D.C.	Turdu, Edward Arnold A.B. 1942, LL.B. 1948, The George Washington University	Tex.
Tucker, Percival Thomas Tucker, Ralph M. Tuckman, Charles William Tugendhaft, Robert Irwin B.S. 1948, The George Washington University	D.C. Nev. D.C. D.C.	Turney, Joanne Tuttle, Lloyd William Henry Tweed, John Franklin Tyler, Charles Raymond Tyler, Margaret Harriet Tyler, Ruth Tym, Leon Tyner, Wanda Norman Tyrrell, Richard Campbell Tyson, Jean Carol A.B. 1947, The George Washington University	Va. Va. D.C. Md. Kans. Va. Ill. Okla. N.Y. Fla.
Tull, Theodore Gerard Tull, Lawrence Emerson C.E. 1920, University of Cincinnati Tull, Robert Lewis A.B. 1949, The George Washington University	N.J. Ohio D.C.	Tzarnes, Christ A.B. 1948, The George Washington University	D.C.
Tullner, William Wirsing, Jr. A.B. 1937, Temple University	N.J.	U	
Tully, Jean Alice Tully, John Montgomery Tully, Richard Edward Tumarkin, Janet Beverly Tunks, Omar Alvin Tupman, Edgar Minther Tupman, Elizabeth Spencer Tupman, Wilbur Crandell B.I.E. 1949, Georgia Institute of Technology	Va. W.Va. Ill. N.J. Va. Va. D.C. D.C.	Uchman, Casimer Francis Udell, Helen Libby Udelson, Daniel Gerald Udick, Leonard Woodrow Uehlinger, John Clark Ufheil, Carolyn Rose Ugel, Stanley Zoul Uhl, Charles Christian A.B. 1949, The George Washington University Uhl, John Phillip Uhler, Theodore Clay, Jr. B.S. 1949, College of William and Mary Uhlinger, Percy Edward Uhrik, Irene Joan B.S. 1943, M.S. 1946, Pennsylvania State College Ulasek, Henry Thomas A.B. 1947, The George Washington University Umar, Yassin A.B. 1944, The George Washington University Umhau, John B. A.B. 1949, The George Washington University Umstead, Lyman John A.B. 1948, The George Washington University Unger, Howard Robert A.B. 1949, The George Washington University Unkenholz, Willard Clifton B.M.E. 1948, College of the City of New York Unzicker, Roy Kenneth Updike, Howard Arnold	Mass. N.Y. N.Y. Colo. Mont. Md. D.C. N.Y. Va. Va. Calif. Pa. Ohio D.C. D.C. Pa. D.C. Va. Va. D.C.
Tupper, Genevieve Frances Turán, Richard Turano, Antoinette Turberville, Alice Atwill B.S. 1942, Mary Washington College Turberville, Bernice Fielder Turco, Rudolph Joseph Turcotte, Charles Louis Turgeon, Frank Leslie Turkal, Donal Lloyd Turl, Soloman H. B.S. 1933, M.S. 1934, College of the City of New York Turman, Leirona Faith A.B. 1936, Randolph-Macon Woman's College Turnburke, David Vernon Turner, Betty Louise Turner, Clarence William, Jr. B.S. in M.E. 1947, Purdue University Turner, Edward Clarence B.S. 1943, University of Maryland Turner, Elizabeth Tufts Turner, Estelle Turman B.S. 1933, East Texas State Teachers College Turner, Harriet Oxford Turner, Howard Robert Turner, Humphrey Lewis Turner, James Ellsworth Turner, Malford Charles Turner, Marie Louise Ralph A.B. 1944, A.M. 1949, The George Washington University Turner, Mary Carolyn Turner, Mary Johnston	Kans. N.Y. N.Y. Va. S.C. D.C. Okla. Maine Mo. Va. D.C. D.C. D.C. Md. D.C. Nev. Va. Va. D.C. N.D. Md. Ill. D.C.		



Uphoff, James Harold	Va.	Vandenberg, Ann	Netherlands
Upton, Emily Frances	Md.	Vandenberg, Martin Aloysius	Pa.
B.S. 1942, University of Maryland		Vander-Hyden, Jay Henry	Va.
Upton, Lillian Beattie	Mass.	Vandermause, Orville Joseph	D.C.
Uransky, Norman A.	Va.	Ed.B. 1941, Wisconsin State Teachers College, Whitewater	N.Y.
A.B. 1947, Oberlin College		Vanderpol, Jack	
Urbany, Mary Emily	Iowa	A.B. 1948, The George Washington University	D.C.
Urrutia, Carlos A.	Guatemala	Van Deusen, John TenEyck	Fla.
A.B. 1949, University of Dayton		A.B. 1948, Brown University	Calif.
B.C.L. 1944, Colegio de Infantes	Va.	Van De Water, Malcolm Stickle	Norway
Ussery, Harry McRae	D.C.	Van Dusen, Charles Albert	Va.
Ustun, Semih Aydemir	N.J.	Vang, Turid	
Uzzell, Edward Foy, Jr.		Van Gorden, Lewis George	
B.S. 1949, University of North Carolina		B.S. 1943, Pennsylvania State Teachers College, Mansfield	D.C.
V			
Vaccaro, Camillo Jimmie, Jr.	D.C.	Vangtal, Tavon	Nebr.
Vache, Barbara Marie	Ohio	Van Horne, Carolyn	Nebr.
A.B. 1949, The George Washington University		Van Horne, Dorothy Kathryn	Nebr.
Vahouny, George Vartkes	Va.	Van Horne, May	Conn.
Vail, Benjamin Anthony	Va.	Van Horsten, Alice Joy	D.C.
A.B. 1940, West Liberty State College		Van Hynning Bernice	
Vain, Neal John	Va.	B.S. 1930, University of Minnesota	D.C.
Valdemar, Ruby W.	Va.	Van Hynning, Nancy Clayton	N.Y.
B.J. 1932, University of Missouri		Van Kleeck, Nelson Leeds	Va.
B.S. in Ed. 1936, Central Missouri College		B.S. 1941, University of Virginia	
Valdez, Margaret	N.M.	Van Meter, Ellsworth Evans	
Valencia, Abelardo Del Rosario, Jr.	D.C.	A.B. 1932, Indiana State Teachers College	Va.
Valentine, Albert Harry	Md.	Van Meter, Mae Brown	Va.
Valentine, Gordon Kenneth	Mo.	B.S. 1931, Madison College	Mich.
Valentine, Raymond Lee, Jr.	D.C.	Van Metre, Albert G.	
Valentini, Philip Endicott	D.C.	Vann, Clarence Houston	Md.
Valentino, Joseph Peter	Va.	B.S. 1947, Wayne University	N.J.
B.S. in C.E. 1938, Alabama Polytechnic Institute		Vann, Maurine Elizabeth	
Valenzi, Joseph Thomas	N.Y.	Van Nimwegen, Leonard	
Valenzi, Louise Mary	D.C.	A.B. 1949, The George Washington University	Va.
Valenzuela, Carlos Alberto	D.C.	Van Nostrand, Oakley W.	
Valerin, Arnoldo A.	Wyo.	B.S. 1934, University of Pennsylvania	Va.
Valerius, Helen	Md.	Van Riswick, Guy Everett	N.M.
Valk, Henry Snowden	D.C.	Van Sanford, Gordon Myron	
Vallance, Marie Anne		A.B. 1949, The George Washington University	Va.
A.B. 1947, Wellesley College	N.J.	Van Scoyoc, Gardner Warren	D.C.
Valler, Horace Joseph		Van Sickler, Aubrey Norris	
B.S. 1948, Colleges of the Seneca	Wyo.	A.B. 1930, The George Washington University	Va.
Valles, Fred Sylvester	Va.	Van Sickler, Francis Lake	D.C.
Valliant, T. Robert	N.Y.	A.B. 1933, University of Richmond	N.Y.
Valone, Francis Paul		Van Slyke, James Kermit	D.C.
B.S. 1948, Union College and University	D.C.	Van Staden, George Arthur	
Valsi, Joseph John	D.C.	Van Story, James Cornelius, Jr.	
Van Allen, Peter	Va.	A.B. 1948, The George Washington University	D.C.
Van Allen, Roland Louis	Mo.	Van Wagner, John James	D.C.
Van Briggie, Robert Dallas		A.B. 1949, Rutgers University	
A.B. 1949, The George Washington University	D.C.	Van Way, Charles Ward, Jr.	Ky.
Vance, Catherine Peter	Md.	B.S. 1924, United States Military Academy	Va.
Vance, Harold Parker	Md.	Vanzandt, Juanita Seay	D.C.
Vance, Henry Breckinridge		Varoutsos, Paul George	D.C.
A.B. 1948, Washington and Lee University	Md.	Varra, Evelyn Eileen	D.C.
Vance, John Thomas	Md.	Varvaressos, Yvonne	D.C.
A.B. 1947, Montana State University	W.Va.	Vasque, Martha McKay	
Vance, Lucy	D.C.	Vass, Richard Branson	Ky.
Vance, Nelson Carr, Jr.	Va.	A.B. 1949, The George Washington University	N.Y.
Van Davere, Georgiana T.	D.C.	Vaughan, Joseph Harrison	
Vandegrift, Paula Bollenbacher	D.C.	Vaughan, Kenneth Lang	



Vaughan, Leonard Walton	Va.	Vinciguerra, John Vincent	Ohio
A.B. 1949, The George Washington University		A.B. 1939, University of Akron	
Vaughan, Margaret Ellen	Ill.	Vinet, Alton Joseph	La.
Vaughan, William John	Va.	Vinkenes, Stanley Charles	Va.
Vaupel, Versie Edith	Mo.	Vintila, Mary Jane	Del.
Vaupel, Warren Frederick	N.Y.	Viola, Gennaro	N.Y.
Vavy, Willis L.	Md.	Violet, Ernest Randolph, Jr.	Md.
Vawter, Henry Alexander	Va.	Violette, Thomas Paul	Va.
Wayda, George Thomas	N.J.	Virdin, Donald Odell	Del.
Wayro, Harry Peckham	Md.	Vire, Howard Francis	Ill.
Vazquez, Antonio Eduardo	D.C.	A.B. 1937, Oakland City College	Va.
Vazquez, Bernardino	D.C.	Virts, Earl Edward, Jr.	D.C.
Veihmeyer, Frank Xavier	D.C.	Vitale, Guy	N.J.
Veihmeyer, Louise	D.C.	Vitale, Michael Joseph	D.C.
A.B. 1930, The George Washington University		Vitale, Samuel Francis	Pa.
A.M. 1936, Columbia University		Vitale, William Victor	D.C.
Veitch, Stephen William	N.M.	Vitez, Thomas George	
A.B. 1949, University of New Mexico		B.B.A. 1949, College of the City of New York	
Venables, Harry Robert	Md.	Vitielliss, Joseph Bruno	D.C.
A.B. 1949, University of Missouri		Viverette, Pearl Marie	D.C.
Venezky, Edith Rita	D.C.	Vivion, Charles George	Wyo.
Venezky, Milton Saul	D.C.	Vivori, William Frank	D.C.
Venick, Jacob	Pa.	Vizzard, William Raymond	Calif.
Ventre, Anthony	D.C.	B.S. 1949, University of San Francisco	
Vera Cruz, Caridad Garcia	D.C.	Vleck, Myron Edward	N.J.
Verbits, Albert	Pa.	B.S. 1943, The George Washington University	
A.B. 1949, Pennsylvania State College		Vliet, Leland Arthur	Va.
Vergine, George Herman	Va.	A.B. 1943, The George Washington University	
Verta, James	N.J.	Voelpel, Jack Clare	D.C.
Vertner, Edmund Kearny, Jr.	Va.	A.B. 1948, The George Washington University	
Vespole, Michael James	N.Y.	Vogel, Bertram Marvin	D.C.
Vest, Stanley Jay	D.C.	Vogel, Christine	D.C.
Vicellio, Nancy Blair	Va.	A.B. 1948, University of Southern California	
A.B. 1934, Meredith College		Vogel, George Paulos	D.C.
A.M. 1939, University of Virginia		Vogel, Millicent Jeanne	D.C.
Vicino, Dominic Joseph	D.C.	A.B. 1947, Indiana University	
Vick, Billy McGuire	Va.	Vogel, Morton Schrader	D.C.
Vick, David Franklin	Va.	Vogel, Ralph Henry	Calif.
Vickers, Doris Hester	Md.	B.S. 1946, Harvard University	
A.B. 1948, University of Richmond		Vogel, Seymour	N.Y.
Vickers, Ollin Dalton	Calif.	Vogelhuber, George Curtis, Jr.	Ohio
Vicory, Alan Higham	Va.	B.S. in Ed. 1937, Ohio State University	
Vicory, Howard Morton	Va.	Vogt, Allan Frederick	Md.
Victor, Stanley Francis	D.C.	B.S. 1931, Ithaca College	
A.B. 1949, Dickinson College		Vogt, George Frederick, Jr.	Md.
Vidal, William	Puerto Rico	Volin, Rudolph Herbert	Ohio
Vidmar, Joseph Ernest	N.Y.	Vollmer, Charles David	Pa.
A.B. 1938, New York State College for Teachers, Albany		Volonte, Betty Jane	Md.
B.S. in L.S. 1940, Louisiana State University		Voloshin, Tamara Paula	Md.
Vienneau, Wilfred Clifford	Va.	B.S. 1948, College of Notre Dame of Maryland	
Vier, William Frederick, Jr.	Md.	Von Ritter, Sadie Irene	Va.
Viets, Ronald Lamont	Calif.	Von Ruden, Marian Ann	Wis.
Vigness, Helen Anne	D.C.	Vorbach, Charles Frederick	D.C.
Vigoreaux, José Ramón	Puerto Rico	Voris, Anna Maybelle	Md.
Viguera, Edward Edwin	Fla.	Voss, Freda Alice Montgomery	N.M.
Vijaranabut, Charnarong	Siam	Voulgaris, Kristallo	D.C.
Vijar, Lorraine M.	Ill.	Vrahiotes, Peter	N.Y.
Villa, Claude Robert	Pa.	Vroom, Oliver Evans	
Villealon, Edward Gonzales	D.C.	A.B. 1948, The George Washington University	
Villechaise, Jean	D.C.		
Villella, Gerald Anthony	D.C.		
Villela, Joan A.	D.C.		
Vinagupta, Chamroom	D.C.		
Vincent, Francis Everett	Va.		
Vincent, John Elmer	D.C.		
B.S. in Ed. 1948, Pennsylvania State Teachers College, Millersville			
		W	
		Waalkes, Teunis Philip	D.C.
		B.S. 1947, Hope College	
		Ph.D. 1945, Ohio State University	



Wachtel, Arthur	N.Y.	Walcott, Shirley Ann	D.C.
Wachtel, Irma Schocken	N.Y.	B.S. in Ed. 1948, Wilson Teachers College	D.C.
A.B. 1944, Columbia University		Walczak, Bronislaw Stanley	D.C.
A.M. 1946, Cornell University		Walden, Mary Sanders	D.C.
Wacker, Stella Czuba	Md.	Waldman, Eric	Md.
A.B. 1937, Ohio State University		Ph.D. 1938, University of Vienna, Austria	
Wacker, Warren Ernest Clyde	Va.	Waldo, George Albert	W.Va.
Waddell, Guy Post	W.Va.	Waldron, David Louis	D.C.
Waddell, Harold Newton	Ga.	Waldron, Mattie Alice	Va.
LL.B. 1938, Atlanta Law School		Waldron, Richard Vernell	Ill.
Waddingham, Albert Thorpe	Utah	Ed.B. 1938, Southern Illinois University	Md.
Wade, Charles Joseph	D.C.	Waldrop, Francis Neil	
Wade, Clarence, Jr.	Va.	A.B. 1946, University of Minnesota	D.C.
Wade, Norris Courtney	D.C.	Waldstein, Anne Marie	Md.
Wade, Richard Rudolph	Ohio	Walen, John Fred	Pa.
A.B. 1948, The George Washington University		Walinsky, Edward Pius	Va.
Wade, Robert Lee	Calif.	Walke, Roger Atkinson, Jr.	
Wade, Susie Belle	Tenn.	A.B. 1936, Princeton University	Md.
A.B. 1937, Siena College		Walker, Alice Elaine	
Wadleigh, John Russell	D.C.	A.B. 1947, The George Washington University	D.C.
Wadlow, Anne Yvonne Mary	D.C.	Walker, Brent Friend	N.M.
Wadman, Alton Justin	Md.	Walker, Dale Bryan	Va.
B.S. 1940, Massachusetts Institute of Technology		Walker, David Stewart, Jr.	
Wadsworth, Dorothy Mae	Pa.	B.S. 1946, Villanova College	D.C.
Wadsworth, James Leo	Nev.	Walker, Eleanore Anne	D.C.
A.B. 1948, Brigham Young University		Walker, Genevieve Marie	D.C.
Waffle, Frances Jane	D.C.	Walker, George Abner, Jr.	D.C.
Waffle, Ferris Bleight	Va.	Walker, George Edward	D.C.
B.S. 1932, College of William and Mary		Walker, George Russell	Ky.
Wagener, Grace Carole	D.C.	Walker, Isabelle Pennington	
Wagener, Carmen Dolores	Md.	A.B. 1934, Centre College of Kentucky	Ohio
Wagman, Barlow Jacob	D.C.	Walker, James Kenneth, Jr.	La.
Wagman, Theodore David	Mass.	Walker, John Robert	D.C.
A.B. 1939, A.M. 1940, Boston University		Walker, John Sherrard Brittain, Jr.	D.C.
Wagner, Carlene Patricia	N.Y.	Walker, John William	Tex.
Wagner, Eugene Edward	Pa.	Walker, Kaye An	Md.
Wagner, Frank Conrad, Jr.	Mo.	Walker, Louise Leahy	Va.
Wagner, Glenn DeWitt	N.Y.	Walker, Marcella	N.J.
A.B. 1949, Syracuse University		Walker, Michael Jerald	Va.
Wagner, Glen Edward	Pa.	Walker, Russell Louis	Miss.
B.S. in Ed. 1932, Pennsylvania State Teachers College, West Chester		Walker, Thomas Jefferson	Md.
Wagner, Harry Larue	D.C.	Wall, Conrad Grey	Kans.
Wagner, John Oliver	Va.	Wall, Harvey Ruben	D.C.
Wagner, John Robert, Jr.	Md.	Wall, Stanley James	Tenn.
Wagner, Joseph Albert	Pa.	Wallace, Bernice Virginia	D.C.
Wagner, Richard	Va.	Wallace, Gertrude Higginbottom	
B.S. 1927, United States Naval Academy		B.S. in Ed. 1927, Western Reserve University	Ala.
A.M. 1949, The George Washington University		Wallace, James David, Jr.	Md.
Wagner, William Francis	N.Y.	Wallace, Julia Christobel	Ky.
A.B. 1947, Cornell University		A.B. 1948, University of Mississippi	Va.
Wagoner, Mary Macine	W.Va.	Wallace, Ira Robert	
A.B. 1947, Salem College, W.Va.		Wallace, Myra Grant	
Wagshal, Jerome Stanley	D.C.	A.B. 1927, University of Utah	Va.
Wahrman, Charles	N.Y.	Wallace, Walter Harold	Pa.
Waibel, Grace Theodora	Minn.	A.B. 1935, West Virginia University	
A.B. 1944, College of St. Catherine		Wallace, William Tearle	D.C.
Wainger, Jack	D.C.	A.B. 1949, Pennsylvania State College	Va.
A.B. 1947, The George Washington University		Wallack, Charles Frank	Va.
Waite, Nancy Jane	D.C.	Wallen, Andy Howard	D.C.
Waite, Sumner	D.C.	Waller, Eustace Conway Moncure	
A.B. 1911, University of Maine		Waller, F. Ford	D.C.
Wake, Charles Louis	Calif.	A.B. 1949, University of Kentucky	W.Va.
Wakefield, Walter Frederick	D.C.	Waller, Lloyd Arthur	D.C.
Walbridge, Robert Bernard	D.C.	Walley, George, Jr.	
		Wallick, Robert Daniel	
		B.S. in E.E. 1948, B.S. in B.A. 1949, Lehigh University	Mo.
		Walls, Edward Lowery, Jr.	



Walp, Lois A.	Pa.	Ward, Albert Preston	Va.
Walsh, Alice Edmonds	D.C.	B.S. 1949, Pennsylvania State Teachers College, Slippery Rock	
Walsh, Charles John, Jr.	Md.	Ward, Alfred Gustave	Ala.
Walsh, Francis Joseph	Mass.	B.S. 1932, United States Naval Academy	
A.B. 1936, L.L.B. 1939, Harvard University		M.S. 1940, Massachusetts Institute of Technology	
Walsh, James Franklin	D.C.	Ward, Coy Deoma	Tex.
B.S. 1946, University of Illinois		Ward, Edward Francis	D.C.
Walsh, James Joseph	Conn.	B.S. 1946, The George Washington University	
Walsh, Joseph Francis	D.C.	Ward, Glenn Richard	D.C.
B.S. 1949, Boston University		Ward, Harold Norvin	D.C.
Walsh, Josephine Ann	D.C.	Ward, Harry Joseph	D.C.
Walsh, Lawrence John	Mich.	Ward, Heman Metcalf	Va.
Walsh, Yvonne Anne	D.C.	Ward, John Albert, Jr.	Tenn.
A.B. 1949, Catholic University of America		Ward, John Wesley	Wash.
Walsten, Carl John Edward	Va.	Ward, Patricia Boyd	D.C.
Walter, David Eberhardt	D.C.	Ward, Paul Andrews	
A.B. 1923, Lycee Francaise, Alexandria, Egypt		A.B. 1938, Municipal University of Omaha	Va.
A.M. 1924, St. Etienne, Marseilles, France		Warden, Burdett Stryker, Jr.	D.C.
Ph.D. 1926, Technische Hochschule, Berlin, Germany		Warden, Frances Ridgway	
Walter, Elmer Herman	Minn.	A.B. 1937, The George Washington University	
Walter, Harry Frederick	Md.	Warden, Imogene	Md.
Walter, Katharine Miriam	Md.	Wardlaw, Gladys Anne	D.C.
B.S. 1944, The George Washington University		Wardlaw, Virginia Clyde	D.C.
Walter, Mamiruth Collins	Va.	Wardrip, Schuyler Clark	Va.
A.B. 1940, East Carolina Teachers College		Ware, Frances Lee	Ky.
Walter, Richard Henry	D.C.	A.B. 1940, University of Louisville	Va.
Walter, Wilfred Aves	D.C.	Ware, Leona Pingel	Mass.
B.S. 1930, United States Naval Academy		Ware, Lloyd Robert	D.C.
Walters, Elizabeth Anne	D.C.	Ware, Robert Stephens	Ohio
Walters, Elvin Winfred	Pa.	Wareing, Richard Burleigh	Md.
B.S. 1949, Lebanon Valley College		Warfield, John Breckenridge	Va.
Walters, Noah Heber	N.C.	Warfield, Richard Myers	
Walters, William Ruric	W.Va.	A.B. 1948, The George Washington University	
A.B. 1945, West Liberty State College		Warfield, Roy Anthony, Jr.	D.C.
Walting, Paul John	Pa.	Warick, Lawrence John	D.C.
A.B. 1949, Pennsylvania State College		Warmack, William Davies	Md.
Walton, Doris Presser	N.C.	Warner, Brainard Henry III	
Walton, Herbert James	Va.	B.E.E. 1946, Yale University	D.C.
A.B. 1948, John B. Stetson University		Warner, Constance Philpitt	D.C.
Walton, Howard Lacy, Jr.	D.C.	Warner, Denra Wallace, Jr.	D.C.
Walton, John Fisher	D.C.	Warner, Gerald Lee	Va.
Walton, June Dahne	D.C.	Warner, Heidi L.	D.C.
Walton, Thomas Snyder	Md.	Warner, Joan Carol	
B.S. 1945, The George Washington University		B.S. 1942, Duquesne University	Va.
Walworth, Kathleen Ann	Va.	Warner, Philip Lambert	Va.
Wambach, Richard Fidelias, Jr.	N.D.	A.B. 1948, American University	
A.B. 1948, Duke University		Warner, Quentin Baxter	
Wampler, Frederick Francis	Va.	LL.B. 1940, Chicago-Kent College of Law	Va.
A.B. 1947, Bridgewater College		Warner, William Claflin	
A.M. 1948, The George Washington University		A.B. 1949, The George Washington University	Ky.
Wampler, Paul Edward, Jr.	Ind.	Warnick, Betty Jane	
Wanamaker, George Ernest	Tenn.	A.B. 1946, Marshall College	
B.S. 1949, University of Tennessee		A.M. 1949, University of Kentucky	N.C.
Wandel, Fred C.	N.Y.	Warren, Howard Eanes	D.C.
B.S. 1935, M.S. 1938, College of the City of New York		Warren, Marguerite Elizabeth	D.C.
Wandel, Marie F.	N.Y.	Warren, Mary Lowell	D.C.
B.S. in Ed. 1941, College of the City of New York		Warren, Thomas Francis	Pa.
Wang, David I. Jaw	D.C.	Warren, Virginia Caroline	D.C.
Wang, Tseng Fu	Md.	Warren, William Wallace	D.C.
Want, Elliotte Cullen	Va.	Warren, Helen	D.C.
		Warthen, Thomas Vernon	
		B.S. 1930, Washington College	
		A.M. 1940, The George Washington University	



Washington, Fielding Lewis LL.B. 1949, The George Washington University	Va.	Weatherbee, Harvard Yelland B.S. 1948, University of Denver	Mich.
Washom, Paul Stephen	Md.	Weathers, Milledge Wright A.B. 1949, The George Washington University	Ga.
Wasilewski, Joseph Clarence B.S. 1949, Pennsylvania State College	Pa.	Weaver, Douglas Price A.B. 1948, The George Washington University	Iowa
Wasileski, Regina R.	Pa.	Weaver, Frank Lloyd, Jr. A.B. 1947, The George Washington University	Mich.
Wasmuth, Karl Edward, Jr.	N.Y.	Weaver, Frederick Lehman	Nebr.
Wasser, Frances Rothberg A.B. 1947, The George Washington University	D.C.	Weaver, Gilbert Earl A.B. 1947, Lenoir-Rhyne College	N.C.
Wasserman, Selma	D.C.	Weaver, Henry David, Jr.	Va.
Wasson, Robert Venson	Md.	Weaver, Patricia Ann	N.Y.
Watanabe, Kazuo A.B. 1948, University of Hawaii	Hawaii	Weaver, Robert Nelson	D.C.
Waterman, Rich Leeman	D.C.	Webb, Anne Snyder A.B. 1948, Shepherd College	W.Va.
Waterman, Samuel B.S. 1948, Cornell University	Md.	Webb, Claude Anderson, Jr.	Va.
Waters, Frances Willard A.B. 1931, A.M. 1932, University of Oklahoma	Va.	Webb, Constance Ann	D.C.
Waters, George Leonard B.S. 1935, M.S. 1940, University of Illinois	Ill.	Webb, George Jerome	Fla.
Waters, Hugh Richard	D.C.	Webb, Jack Bassett A.B. 1948, University of Kansas	Mo.
Waters, Raymond Joseph	N.Y.	Webb, Joseph Coates, Jr. A.B. 1948, The George Washington University	D.C.
Watford, Frankie Hillery	Ga.	Weber, David Joseph	Ohio
Wathen, Rosa Lee A.B. 1934, Western Maryland College	Md.	Weber, Edward Robert B.S. 1940, Wisconsin State Teachers College, La Crosse	Wis.
Watkins, Cleveland Foster	Md.	Weber, Franklin Taylor B.B.A. 1948, University of Wisconsin	Mont.
Watkins, Harold Stanley	Va.	Weber, Harry	N.Y.
Watkins, Henry Lee	Md.	Weber, Mildred Catherine	Va.
Watkins, James Edward	Va.	Weber, Paul B.S. 1947, The George Washington University	Va.
Watkins, Jeanene	Va.	Weber, William John	D.C.
Watkins, John M.	Va.	Webster, Clark Gibbons	Md.
Watkins, Nina Eileen	Va.	Webster, Edward B.S. 1942, University of Maryland	Ind.
Watkins, Peggie Jane	D.C.	Webster, John Clyde	D.C.
Watkins, Phillip Lewis	Md.	Webster, John Mark B.S. 1942, University of Minnesota	
Watkins, William Henry B.S. 1940, University of Maryland LL.B. 1949, The George Washington University	D.C.	Webster, William Harley	Md.
Watkins, William Tatum	Fla.	Wedemeyer, Robert Dade	D.C.
Watrous, William Leslie Peter	N.Y.	Wedge, John William, Jr.	Nev.
Watson, Beulah Elizabeth	Tex.	Wedgeworth, May A.B. 1928, The George Washington University	Md.
Watson, Bruce Parish LL.B. 1947, The George Washington University	Md.	Wedgeworth, Ola Frances B.S. 1937, George Peabody College for Teachers	D.C.
Watson, Evan William	D.C.	Wedler, Arthur, Jr.	Ind.
Watson, Gerald LeRoy	D.C.	Weed, Norman Broadwell A.B. 1938, Stanford University	D.C.
Watson, Henry Bartlett	D.C.	Weeder, Gilbert Louis	Md.
Watson, James Angus III	Md.	Weeks, Harold Eugene	N.Y.
Watson, John Monro	D.C.	Weeks, John Dwight	D.C.
Watson, Norman Edward James	D.C.	Weeks, Mary Charlotte A.B. 1942, Madison College	Va.
Watson, Robert Carlyle	Va.	Weeks, Patricia Dwight	Md.
Watson, Vera Virginia A.B. 1930, West Virginia University	Va.	Weznzek, Chester George	D.C.
Watt, Richard Albert	Va.	Wehmeyer, Donald Arthur A.B. 1946, LL.B. 1947, University of Texas	Tex.
Waugh, Carolyn Lydia A.B. 1949, The George Washington University	Maine	Wei, Dorothy	D.C.
Waugh, Perry Eugene	Ill.		
Waugh, Richard Alvin	D.C.		
Waupoose, Richard	Wis.		
Way, Joseph Dale	Pa.		
Waybright, Robert Lee	D.C.		
Wayland, Clarence Raymond	Va.		
Wayne, Raymond Val, Jr.	N.Y.		
Ways, Douglas Arthur	N.Y.		
Weare, George Cabot A.B. 1949, University of Maryland	W.Va.		
Weasmer, Charles Brent	D.C.		



Weidenbaum, Murray Lew	N.Y.	Welch, Dorothy May	Mass.
B.B.A. 1948, College of the City of New York		B.S. in Ed. 1946, Massachusetts State Teachers College, Salem	
A.M. 1949, Columbia University		Welch, George, Jr.	D.C.
Weigand, Robert Joseph	N.Y.	Welch, Hubert Mason	D.C.
Weimer, David Blair	D.C.	Welch, June Curtis	Tex.
Weimer, Lorraine Mellon	Va.	Welch, Michael Crawley	D.C.
Weinberger, Elias	N.Y.	Welch, Philip Pindell	D.C.
Weinberger, George	Va.	B.S. 1918, United States Naval Academy	
Weinert, Arla Elaine	Mich.		Va.
A.B. 1942, M.P.A. 1947, Wayne University		Weld, Dorothy Anne	Ohio
Weingarten, Hyman	N.Y.	Weldy, Pauline	N.J.
Weingrad, Richard Herbert	N.Y.	Welker, June Pearl	
Weinreb, Thelma Beatrice	D.C.	Welles, Richard Henry	Md.
Weinrich, Lee Wallace	Ohio	Wellford, Mary Jean	
Weinsbank, Herbert Seymour	N.Y.	A.B. 1948, Randolph-Macon Woman's College	
Weinstein, Harvey Harold	D.C.	Wellinger, Pearl Brittingham	Va.
Weinstein, Robert Earl	N.C.	A.B. 1931, College of William and Mary	
Weinstein, Samuel	D.C.	Wellington, Benjamin	D.C.
Weintraub, Irwin George	N.Y.	Wellington, Marion Webber	Va.
B.S. 1949, College of William and Mary		A.B. 1931, Brown University	
Weintraub, Leo	D.C.	Ed.B. 1936, Rhode Island College of Education	
Weintraub, Leo Martin	N.Y.		N.Y.
Weintraub, William Chodoff	D.C.	Wellington, Peretz	D.C.
Weisberg, Alan Stanley	D.C.	Wellman, Wayne Eugene	Md.
Weisblat, Abraham Melvin	D.C.	Wells, Clinton Fisk, Jr.	
A.B. 1940, New York University		B.S. 1948, University of Maryland	D.C.
Weissblat, Irving	D.C.	Wells, Delbert Eugene, Jr.	D.C.
Weissbrod, Fred Edgar	D.C.	Wells, Dorothy Jones	D.C.
Weise, Allen Gardner	Md.	Wells, Edmund John, Jr.	
B.S. 1948, The George Washington University		B.S. 1948, The George Washington University	
Weise, Ernest Lyman	D.C.	Wells, Ellwood C.	Ohio
B.S. 1938, The George Washington University		Wells, Frank Hugh	Ind.
Weisgerger, Leo Bernard	D.C.	Wells, Frank Jefferson	D.C.
Weiskopf, Paul David	Pa.	Wells, Glenn Sherman	Va.
Weiss, Alfred Rudolph	D.C.	B.S. in Ed. 1949, Madison College	S.D.
Weiss, Alma Brendler	D.C.	Wells, Gordon Clifford	Va.
A.B. 1947, University of Maryland		Wells, Harry Elbert	Va.
Weiss, Kenneth Floyd	D.C.	Wells, Morris William	
Ms. Leona M.	Iowa	B.S. 1949, Miami University	Ky.
M.S. 1948, University of Wisconsin		Wells, Rebecca Roe	Va.
Weiss, Norman Redelin	D.C.	Wells, Richard Glenn	Mich.
Weiss, Peter Josef	D.C.	Wells, Robert Oscar, Jr.	Wis.
Weiss, Robert Jerome	N.Y.	Wellso, Charles George	
A.B. 1949, University of Rochester		B.S. 1949, University of Wisconsin	D.C.
Weiss, Rowena	D.C.	Welsh, Fletcher Harvey	Va.
B.Ch.E. 1949, Catholic University of America		Welsh, Helen S.	Tex.
Weiss, Samuel	D.C.	Welsh, James William	
Weiss, Wallace Hartman	D.C.	A.B. 1949, The George Washington University	D.C.
Weiss, William	N.Y.	Welsh, Joseph Marshall	Va.
A.B. 1948, The George Washington University		Welsh, Mary Kathleen	Md.
Weisser, Lawrence Matthew	Va.	Welsh, Thomas William, Jr.	Pa.
Weissinger, Phyllis Bate	D.C.	Wendell, Elizabeth Mary	Va.
Weissman, Milton	N.Y.	Wendell, Harold Gilbert	Md.
B.Ch.E. 1939, New York University		Wendling, Andre Georges	Iowa
Weissmann, Max Ludwig	D.C.	Wendt, Carl Morten	
Weitzel, Elizabeth M.	Va.	A.B. 1937, A.M. 1939, University of South Dakota	S.D.
Weitzel, James Russell	Md.	Wendt, Lucile Burd	
Weitzman, Mary Cohen	D.C.	A.B. 1942, University of South Dakota	D.C.
Weitzner, Jay Kenneth	N.Y.	Wenger, Nelson Edward	Va.
Weker, Simon Louis	Mass.	Wenger, William Fred	Md.
A.B. 1934, Harvard University		Wenner, Evelyn Wingate	
Ed.M. 1938, Teachers College of the City of Boston		A.M. 1937, Johns Hopkins University	Va.
Welch, Arthur Stelhorn	D.C.	Wenner, Gordon Blackburn	D.C.
		Wensel, Henry Theodore, Jr.	
		A.B. 1947, St. Johns College, Md.	Utah
		Wentworth, William Glenn	D.C.
		Wentz, Jane Foster	



Wentz, Lois Mae	Va.	Wharton, Richard Henry	Ohio
Werbow, Farrell Roy	D.C.	B.S. 1933, University of Dayton	
Werner, Alice Crane	N.J.	M.S. 1946, Ohio State University	Va.
Werner, Ingeborg Esperanza	Mexico	Wheatley, Andy Clarence	
Werner, Monroe Mark	N.Y.	A.B. 1940, Trinity University	D.C.
Werner, Brooklyn College		Wheatley, Charles Howard	
Werner, Winton Willis	Minn.	B.S. in M.E. 1947, Drexel Institute of	
Wernitz, Carl Weber	D.C.	Technology	Iowa
Wert, John Wesley	D.C.	Wheaton, Richard Murray	Mass.
Wert, Thomas Fredrick, Jr.	D.C.	Wheeler, Arthur Adrian	D.C.
Werthenbruch, Marie Claire	D.C.	Wheeler, Mary Robb	
Werth, Gwendolyn Lewis	D.C.	A.B. 1938, University of Kansas	Conn.
A.B. 1948, Wellesley College		Wheeler, Mary Star	
Wertheim, David Seymour	N.Y.	A.B. 1916, Wellesley College	
Wertz, Francis Dominic	Md.	LL.B. 1949, The George Washington	
Wesper, Willis Henry	N.J.	University	Md.
Wessel, Robert Glenn	Ill.	Wheeler, Richard Paul	D.C.
West, Alberta Anne	Pa.	Wheeler, Violette Niederhauser	Nebr.
West, Alexander Lockhart	Ark.	Wherry, David Colwell	
West, Alice Amanda III	Va.	A.B. 1948, The George Washington	
A.B. 1948, University of Arizona		University	Oreg.
West, Clyde Wilson, Jr.	D.C.	Whisenand, Benjamin Murray	D.C.
West, Genevieve Lillian	N.Y.	Whissen, Helen E.	Va.
West, George Bruce	Md.	Whitacre, Frank Lee	
A.B. 1949, Washington and Lee		A.B. 1937, Shepherd College	Md.
University		Whitaker, Doris Allen	
West, George William	D.C.	A.B. 1943, Southern Methodist	
West, Guy Barnes	Del.	University	Tenn.
West, Lee Everett	D.C.	Whitaker, Edward Stephen	
West, Luther Charles	Ala.	A.B. 1942, King College	Md.
A.B. 1948, Birmingham-Southern		Whitby, John Stephen	D.C.
College		Whitby, William David	D.C.
West, Marc Lee	D.C.	Whitcomb, Jack Bispham	N.Y.
B.S. 1948, The George Washington		White, Albert Carlton	D.C.
University		White, Alfred Lawson	N.Y.
West, Marian Pickford	Va.	White, Doris Jean	Va.
West, Norman Ariel	Va.	White, Dorsey Marvin, Jr.	N.Y.
A.B. 1949, University of Richmond		White, Everett Edward	
West, Robert Harlow	Md.	A.B. 1938, Dartmouth College	Calif.
West, Sally Frances	D.C.	White, Horace Walter	D.C.
B.S. 1939, Wilson Teachers College		White, Howard Seal	
West, William Royster	Va.	B.S. 1949, Wilson Teachers College	Nebr.
Westbrook, William Hughes	Pa.	White, Irvin Albert	
Westcott, George Godfrey	N.Y.	LL.B. 1949, The George Washington	
Westcott, Raymond Arthur	D.C.	University	Miss.
Westermann, Harland Walter	D.C.	White, James Douglas	Va.
Westervelt, Frederic Ballard, Jr.	Va.	White, Joseph Hill	
Westfall, Henry Bryan	D.C.	A.B. 1949, American University	D.C.
Westfall, Robert Madison	W.Va.	White, Kenneth Woodward	
Westmoreland, Robert Norman, Jr.	Va.	A.B. 1949, The George Washington	
Westmoreland, William Jewell	D.C.	University	Va.
Weston, Glen Earl	Md.	White, Marian Virginia	D.C.
B.S. 1943, University of Maryland		White, Marjorie Evelyn	
LL.B. 1948, The George Washington		A.B. 1949, University of Maryland	Mich.
University		White, Muriel Lillian	D.C.
Wetherbee, Fairland Henry	Md.	White, Robert Bellarmine	W.Va.
Wetmore, Joseph O.	Conn.	White, Robert Lynn	Va.
Wetzel, Charles Maynard	Va.	B.S. 1947, Marietta College	
B.S. 1936, University of Alabama		White, Robert Pearson	Va.
Wetzel, Lawrence Bartlett, Jr.	D.C.	B.S. 1938, University of Maryland	N.Y.
Wetzel, Nancy Beatrice	D.C.	White, Virgie Franklin	D.C.
Whalen, Grace Dolores	Va.	White, Virginia Augusta	Ohio
Whalen, Helen Louise	Va.	White, William Emerson	
Whalen, James John	D.C.	White, William Melone	
Whalen, John Bernard	Va.	B.S. 1941, The George Washington	
Whalen, Ralph Leroy, Jr.	D.C.	University	N.Y.
Whaley, Mary Virginia	W.Va.	White, Willis Graham	Md.
A.B. 1949, The George Washington		White, Zelma Luetta	W.Va.
University		Whitehair, George Washington	
Wharry, Llewellyn Russell	Ill.	A.B. 1930, West Virginia University	Calif.
B.S. 1931, Bradley University		Whitehead, Roger Donald	Ky.
A.M. 1936, State University of Iowa		Whitehouse, William Ambrose, Jr.	N.Y.
		Whiteman, Mary Catherine	



Whitener, Thomas Grady	Md.	Wier, Richard Austin	Tex.
Whitesel, James Warren	D.C.	B.B.A. 1943, University of Texas	N.J.
A.B. 1943, Wake Forest College		Wieroniey, Paul Martin	D.C.
J.D. 1948, The George Washington		Wiesman, Benjamin	D.C.
University		Wiggins, John Russell	Okla.
Whitesel, Patricia Eileen Aylward	Maine	Wiggins, Lloyd George	D.C.
Whitesel, Roy Thornton	D.C.	Wiggins, Patricia Ann	Pa.
Whitham, Ruth Blanton	Va.	Wiggins, Thomas Arthur	N.C.
B.S. 1934, Fort Hays Kansas State		B.S. 1942, Pennsylvania State College	Va.
College		Wiggs, Deems Norwood	Va.
Whiting, Donald Oren	D.C.	Wight, Arianna Randolph	Va.
B.B.A. 1949, University of Minnesota		Wight, Gladys C. J.	D.C.
Whiting, Louise Tiffany	Tex.	Wigle, Gerald Elvin	N.Y.
A.B. 1949, The George Washington		Wigren, Lloyd Ethan	Pa.
University		A.B. 1939, Columbia University	Mass.
Whitlock, Duane Lewis	Iowa	Wike, Mabel Elizabeth	Pa.
Whitlock, Elmer William	Va.	Wilansky, Donald Mark	
Whitman, Gretta Rae	D.C.	Wilbur, M. Margaret	D.C.
Whitman, Irving	D.C.	A.B. 1946, The George Washington	
Whitman, Jack	Pa.	University	D.C.
Whitmore, Charles Warren	Va.	Wilbourn, Robert	Md.
M.D. 1947, University of Virginia		Wilbur, Glenmore A.	S.C.
Whitmore, Daniel Norman	Nev.	A.B. 1937, University of Washington	Fla.
Whitmore, Lorin Brigham	Nev.	Wilburn, George Davis	Va.
Whitmore, Mary Ursula	Mass.	Wilck, Joan Dorothy	Va.
B.S. in Ed. 1935, Massachusetts		Wilcox, Audrey Reid	N.Y.
State Teachers College, Salem		Wilcox, Jessie Elna	D.C.
Whitmore, Sidney Roxton	D.C.	Wilcox, Robert Lynn, Jr.	Colo.
Whitney, Edwin Forrest	Ind.	Wildman, Janet	Ga.
B.S. 1936, Purdue University		Wildman, Theodore John	
Whitney, George Ward	N.Y.	Wiley, Earl Brooks	D.C.
B.E.E. 1949, Rensselaer Polytechnic		A.B. 1949, The George Washington	
Institute		University	Md.
Whitney, Joseph Roland	Mich.	Wilhelm, Harry Wesley	Utah
B.S. 1945, University of Minnesota		Wilkinson, John Krantz, Jr.	Miss.
Whitsitt, Mildred	Tenn.	A.B. 1949, The George Washington	D.C.
Whitt, Gordon Alfred	D.C.	University	D.C.
A.B. 1949, The George Washington		Wilkins, Donald Frank	Va.
University		Wilkins, Myra Carolyn	Va.
Whittemore, William Kittredge	D.C.	Wilkins, William Watkins	Md.
Whittenburg, John Vernon	Tex.	Wilkinson, John Kenneth	Va.
B.S. 1948, Rice Institute		Wilkinson, Mary Margaret	Va.
Whittington, Helen Vierling	Md.	Wilkinson, Phyllis Henrietta	Va.
A.B. 1939, Columbia University		Wilkinson, Richard Sterling	Md.
Whittington, James Gordon	N.C.	Wilkinson, William Beattie, Jr.	Va.
Whittington, Mary L.	Wyo.	Will, Elizabeth Grace	Md.
Whittle, Ransom Alban	Va.	B.S. 1948, Cedar Crest College	
Whitwell, Sanford MacCallum	Pa.	Will, Fern Florence	Md.
B.S. 1944, Cornell University		A.B. 1942, The George Washington	
Whitworth, Lewis Beaman	Md.	University	Md.
Whyte, James Harrison	Mo.	Will, Oscar Vernon	D.C.
Whyte, Richard Winfield	D.C.	Willard, James Essex Fisk	Va.
B.A.E. 1949, Catholic University		Willard, Marjorie Avery	D.C.
of America		B.S. 1944, Madison College	Md.
Wichin, Ernest Aaron	N.Y.	Willard, William Creighton	N.Y.
B.B.A. 1942, College of the City		Willcox, Ralph Emerson	Hawaii
of New York		Willetts, Chester Austen, Jr.	Maine
M.B.A. 1945, New York University		A.B. 1949, Columbia University	
Wicke, Philip Jacob	Ohio	Willett, Edwin Dexter	D.C.
Wicker, George Stanley	Ga.	Willett, John Raymond	Md.
A.B. 1939, Emory University		A.B. 1948, The George Washington	
Wickline, Harry F.	Mo.	University	D.C.
Wickre, Mabel Lorraine	S.D.	Willett, Marie-Louise	Md.
Wicks, Thomas Andrew	D.C.	Williams, Albert Keith	D.C.
Widman, Charles Louis	D.C.	Williams, Angela Mohala	
Widman, Joseph William	D.C.	A.B. 1921, A.M. 1931, Indiana	
Widmann, John William	Pa.	University	Va.
B.S. 1940, Villanova College		Williams, Arvin Samuel	Ala.
Widmyer, W. Ralph	W.Va.	B.S. 1942, Milligan College	
A.B. 1939, Shepherd College		Williams, Betty Kathryn	
Wiefelspuetz, Edwin Alfred	Wis.		
Wiener, Harvey	Ill.		



Williams, Bruce Harold	Tex.	Williamson, Laura Mae	Va.
B.S. 1934, Southwest Texas State Teachers College		B.S. 1941, University of Tennessee	Md.
Ed.M. 1938, University of Texas		Williamson, Oliver Gordon	Va.
Williams, Catherine Spencer	Va.	Williamson, Richard Thayne	Tex.
Williams, Charles Edward	D.C.	Williamson, Robert Burns	Ill.
Williams, Clement Grant	D.C.	A.B. 1947, University of Texas	Md.
Williams, Constance Elizabeth	N.J.	Williamson, Thomas Binney	D.C.
Williams, Donald Guy	Va.	Williamson, William A.	D.C.
Williams, Dwight Lincoln	R.I.	Willier, Lillian E.	N.Y.
Williams, Earl, Jr.	Ill.	Willingham, John Martin	
Williams, Earl Thomas	Pa.	Willis, Dawn Eliza	
Williams, Edith Ora	Va.	A.B. in Ed. 1945, The George Washington University	D.C.
Williams, Elizabeth M.	Va.	Willis, Dorothy Catherine	D.C.
Williams, Elma	D.C.	Willis, Harold Robert	Va.
Williams, Frank Evans, Jr.	D.C.	Willkie, Joseph Brian	Va.
Williams, Henry Newton	Tenn.	Willoughby, Nancy Sue	Miss.
B.S. 1937, Middle Tennessee State College		Wills, Lester Edward, Jr.	
A.M. 1938, University of Tennessee		A.B. 1948, University of Chicago	D.C.
Williams, Janice Ruth	D.C.	Wills, Walter Cruise	Colo.
Williams, Jeanette Kelly	N.C.	Willson, John Tucker	
Williams, John Charles	N.D.	B.S. 1948, The George Washington University	N.Y.
Williams, John Marshall	D.C.	Willson, Robert Crompton	S.C.
B.S. in Ed. 1936, Wisconsin State Teachers College, Eau Claire		Wilson, Arrah Minerva	
Williams, John Mitchell	Tex.	A.B. 1945, University of South Carolina	
B.S. 1949, Texas Christian University		LL.B. 1948, University of Virginia	Va.
Williams, Josephine Andoe	Tenn.	Wilson, Aubrey Bennett, Jr.	
A.B. 1941, A.M. 1942, University of North Carolina		B.S. in M.E. 1941, University of Virginia	Md.
Williams, Kendrick W.	Mich.	Wilson, Betty Louise	Va.
Williams, Lawrence Harvey	Va.	Wilson, Byron Kent	
B.S.L. 1947, University of Minnesota		A.B. 1946, Arkansas State Teachers College	Va.
LL.B. 1948, University of Colorado		Wilson, Charles Edward	Md.
Williams, Leonard	Pa.	Wilson, Charles Millard	Md.
Williams, Leonard John	Md.	Wilson, Coleman Lee	D.C.
Williams, Luroff H.	Va.	Wilson, Dale Branch	Mass.
Williams, Margaret Goodwin	D.C.	Wilson, Donald Smith	
A.B. 1931, Wellesley College		B.S. in C.E. 1942, Tufts College	Ala.
Williams, Marjorie Louise	Md.	Wilson, Dyer Pinkney, Jr.	Pa.
Williams, Marvin Edward	Tenn.	Wilson, Edward Jay	Ill.
Williams, Mary	Md.	Wilson, Eleanor Louise	
Williams, Mary Beach	D.C.	A.B. 1949, Wells College	Va.
Williams, Owen Wingate	Md.	Wilson, Firman Wentling	Va.
A.B. 1948, Kalamazoo College		Wilson, George Robert, Jr.	Pa.
Williams, Patricia Anne	D.C.	Wilson, George West	Ind.
Williams, Patricia Frances	Mich.	Wilson, Harold Maurice	
Williams, Polly Teed	D.C.	A.B. 1948, A.M. 1948, The George Washington University	D.C.
B.S. 1948, The George Washington University		Wilson, Henry Charles	D.C.
Williams, Richard Edward	Pa.	Wilson, Henry Clay	D.C.
Williams, Robert George	Va.	Wilson, Howard	Mont.
Williams, Robert Reynolds	Md.	Wilson, Howard Eugene	W.Va.
A.B. 1935, Brown University		Wilson, Howard Owen	D.C.
M.D. 1940, Columbia University		Wilson, James Frederick	D.C.
Williams, Thomas Nottingham	Md.	Wilson, James Howie	Md.
Williams, Thomas Richardson	D.C.	Wilson, Janet Marie	Mo.
Williams, Wilfred Stanton	Calif.	Wilson, Jesse Lee	Va.
B.S. 1937, University of Southern California		Wilson, John Robert	Va.
Williams, Willard	D.C.	Wilson, Josephine Coleman	Tenn.
Williams, William Barron	Mich.	Wilson, Julia Wales	
Williams, William Sterne	D.C.	A.B. 1929, Tusculum College	Va.
A.B. 1935, University of Utah		Wilson, June Doolan	
Williams, Woodburn Carlisle	Nev.	B.S. 1949, University of Maryland	Okla.
A.B. 1938, University of North Carolina		Wilson, Leland	D.C.
Williamson, Daniel Lester, Jr.	Va.	Wilson, Leo Earl	
Williamson, John George	Tenn.	B.S. 1948, Carnegie Institute of Technology	D.C.
A.B. 1948, The George Washington University		Wilson, Leonard Merle, Jr.	
		A.B. 1949, West Virginia University	



Wilson, Louis A.B. 1940, Brooklyn College	D.C.	Winn, James Maier	Vt.
Wilson, Lynne A.	Kans.	Winn, Wendell Sterling	Md.
Wilson, Marie	Mo.	A.B. 1948, University of Missouri	
Wilson, Mary Alice	Nebr.	Winnick, Ruth Estelle	D.C.
B.S. 1939, University of Nebraska		Winslow, Richard Elliott	N.H.
Wilson, Orme, Jr.	D.C.	A.B. 1926, Amherst College	
B.S. 1942, Harvard University		M.B.A. 1928, Harvard University	D.C.
Wilson, Paul Grier	Va.	Winston, Anthony	Va.
A.B. 1950, University of Maryland		Winston, Robert Alexander	
Wilson, Paul Randolph	D.C.	A.B. 1935, Indiana University	Pa.
A.B. 1949, The George Washington University		Winston, Thomas Harry	N.Y.
Wilson, Philip Harold	Ill.	Winter, Frank Ephraim	
Ed.B. 1940, Illinois State Normal University		B.S. 1943, University of Pittsburgh	Okla.
Wilson, Raymond Boyd	Nebr.	Winter, Lewis Jasper	
Wilson, Richard Herbert, Jr.	Va.	B.S. 1949, The George Washington University	Md.
Wilson, Ruth Elizabeth	Mo.	Winter, Philip Haywood	
Wilson, Ruth Whitfield	D.C.	B.S. 1938, Wilson Teachers College	Pa.
Wilson, Thomas Edwin	Ill.	Winter, Robert Edward	Va.
Wilson, W. A. Neil	Md.	Wintermoyer, Harry Fulton	
Wilson, William Dean	Wyo.	A.B. 1944, Shepherd College	N.Y.
B.S. 1949, University of Wyoming		Winters, Wallace Dudley	D.C.
Wimbrow, Charles Franklin	Va.	Winters, William Harvey	Va.
Winchell, Ralph Ellis	Okla.	Wirt, John Alvin	D.C.
Windecker, Louis Edwin	N.J.	Wischusen, Charlotte Augusta	D.C.
Windheim, Sandoe	N.Y.	Wise, Betty Jane	Pa.
A.B. 1948, The George Washington University		Wise, Robert Arthur	Md.
Windingland, Einar	N.D.	Wise, William Arthur	Va.
A.B. 1940, North Dakota State Teachers College, Minot		Wiseman, Ben Warren	
Windle, Betty Lou	D.C.	A.B. 1948, West Virginia University	Pa.
Windsor, Marshall Daniel	Va.	Wisher, Helen Ausk	Va.
Wine, Sarah	Mass.	Wisner, Carl Edward Jr.	Va.
A.B. 1945, The George Washington University		Wiswell, Mary Anne Stevenson	D.C.
Wineberg, John Walter	Pa.	Witcoff, Sheldon William	
Wineland, Robert Kenneth	D.C.	B.S. 1949, University of Maryland	N.Y.
A.B. 1948, The George Washington University		Witenstein, Matthew Martin	
Winer, Ben James	D.C.	B.S.S. 1940, College of the City of New York	
B.S. 1939, M.S. 1941, University of Oregon		Witham, Robert Carey	Md.
Wines, Floyd Arthur	Va.	Withers, Everett Whiting	W.Va.
Wines, Judson James	D.C.	A.B. 1927, West Virginia University	
Wines, Mildred Roof	D.C.	B.J. 1929, University of Missouri	N.C.
A.B. 1931, University of South Carolina		Withers, John Lewis	
Wing, Marie Ellen	Mich.	B.S. 1940, Davidson College	
A.B. 1948, University of Michigan		A.M. 1941, University of North Carolina	Md.
Wing, Robert Claude	Maine	Witherspoon, Fred Lee, Jr.	
B.S. 1935, United States Naval Academy		B.S. in M.E. 1941, University of Maryland	N.Y.
M.B.A. 1939, Harvard University		Witkin, Eugene	Md.
Winger, Earl Lester	Va.	Witkin, Lloyd Benjamin	
A.B. 1942, University of Wisconsin		B.S. 1949, Louisiana Polytechnic Institute	Mass.
Wingfield, Lester Ray	Ark.	Witkowski, Walter Phillip	Va.
Ph.B. 1923, University of Chicago		Wittauer, Mary Sue	Wis.
Wingo, James Scott	D.C.	Wixson, Leonard Carroll	Md.
Wingo, Richard Brown	Va.	Wnek, George	
Wingo, Shirley Dale	Va.	Wodinsky, Isidore	
B.S. 1942, University of Virginia		A.B. 1939, Brooklyn College	Pa.
Wink, Walter Scott	D.C.	Woelke, Arnold Benjamin	
Winkelmann, Frederick William	Va.	B.S. in Ed. 1940, Southeast Missouri State College	D.C.
Dr. Jur. 1937, University of Göttingen, Germany	N.Y.	Wofford, Clarence Arnold	Mass.
Winklareth, Robert Jay	N.J.	Wofford, John Wesley, Jr.	N.Y.
B.S. 1949, Stevens Institute of Technology		Wohlleben, William McNulty	
Winkler, Joseph Fred	Md.	B.M.E. 1942, Clarkson College of Technology	D.C.
		Woidich, Francis De Sales	Va.
		B.S. 1945, Harvard University	N.Y.
		Woidke, John Oliver	Mass.
		Wojtkowiak, Raymond Alfred	N.J.
		Wojtkowski, Thomas Casmere	
		Wojtowicz, Jan, Jr.	



Wolchick, Ruth Louise	Pa.	Wood, Charles William	Pa.
Wold, Henry Edward	D.C.	LL.B., 1949, The George Washington University	D.C.
Wolf, Frank George	D.C.	Wood, Edwin Charles	S.C.
Wolf, Israel	D.C.	Wood, Harry Eugene	D.C.
Wolf, Joseph Jay	D.C.	Wood, Jack Guy	Va.
Wolf, Manuel	Wis.	Wood, James Nathan	
Wolf, Norbert Joseph	D.C.	A.B. 1935, DePauw University	
Wolf, Richard Marvin	Ill.	LL.B. 1938, Indiana Law School	
Wolf, Verna Mae	La.	LL.M. 1942, The George Washington University	Va.
Wolf, William Emmert	N.Y.	Wood, John Birkhead	N.C.
Wolf, William Mathew	Calif.	Wood, John Fred	D.C.
Wolfarth, Carlton Huntington	Colo.	Wood, Julia Burton	N.J.
Wolfarth, Charlene D.		Wood, Kathleen Rose	Va.
A.B. 1943, The George Washington University	Mo.	Wood, Lloyd Fuller	Colo.
Wolfe, Allen Lee	D.C.	Wood, Margaret Jones	
Wolfe, Eddie		Wood, Marion Blanche	
B.S. 1937, The George Washington University	W.Va.	A.B. 1946, University of Colorado	N.C.
Wolfe, Eugene Noel	Va.	M.S. 1948, University of Minnesota	Mo.
Wolfe, Margaret Mary		Wood, Marvin Lee	
A.B. 1941, St. Joseph's College for Women	Ky.	Wood, Paul King	Md.
Wolfe, Roy Pratt	D.C.	B.S. 1942, University of Missouri	
Wolfenson, Jay Warren		Wood, Robert Ambrose	
A.B. 1948, The George Washington University	N.Y.	A.B. 1948, The George Washington University	Ill.
Wolff, Catherine Jean	Utah	Wood, Robert Lee	Ind.
Wolff, Gerald Spalding		Wood, Stella Draper	Ill.
A.B. 1949, The George Washington University	Va.	Wood, Thomas Bennett	Tex.
Wolff, Louis		Wood, Walter Henderson	Mass.
A.B. 1949, The George Washington University	Pa.	Wood, William Joseph, Jr.	D.C.
Wolffe, Lenard Lee		B.S. 1950, American University	Va.
A.B. 1948, The George Washington University	W.Va.	Wood, Willis John	N.C.
Wolfsohn, Harold Barnett	England	Woodall, Diana Dorothy	
Wolfsong, Margaret Stella		Woodard, Calvin	
A.B. 1942, London School of Economics	D.C.	A.B. 1949, University of North Carolina	Md.
Wolfson, Reuben	N.Y.	Woodard, Frank Jones	Va.
Wolfson, Stanley William		Woodard, Geoffrey Dean Leroy	
B.S. 1948, Pennsylvania State College	Md.	B.S. 1939, The George Washington University	Va.
Wolk, Morris O.	Calif.	Woodard, Joseph Harold	Utah
B.S. 1936, Cooper Union		Woodbury, Wallace Richards	Conn.
Wolk, Reuben		A.B. 1947, University of Utah	
B.S. 1938, University of Maryland	D.C.	Woodhouse, Margaret Wark	D.C.
Wollin, Harold Frank	N.Y.	A.B. 1946, University of North Carolina	
Wolman, Harold		Woodhull, John Hawley	Pa.
B.S. 1942, College of the City of New York	D.C.	B.S. in E.E. 1942, Tufts College	
Wolman, Pearl	D.C.	Woodling, Francis Albert	N.H.
Wolman, Sidney Stanley	Mass.	A.B. 1946, The George Washington University	Md.
Wolozin, Robert	D.C.	Woodman, Philip Colby	D.C.
Wolpert, Samuel Albert	D.C.	Woodmansee, Charles H.	Calif.
Wolpoff, John Robert	Conn.	Woodring, Anne Owen	
Wolski, Bernard Victor	D.C.	Woods, Bruce Allan	D.C.
Womack, Herman Lynn		A.B. 1949, University of Redlands	Mich.
A.B. 1949, The George Washington University	Ga.	Woods, Harlan LeRoy	Va.
Womble, John Philip		Woods, Harold Dean	
B.S. 1920, United States Naval Academy	D.C.	Woods, John George	Calif.
Wommack, Claire	China	A.B. 1943, Centenary College	Va.
Wong, Hsin Ping	D.C.	LL.B. 1949, Georgetown University	Va.
Wong, James Aubrey	N.H.	Woods, Robert Ora	Va.
Wong, Wing		Woodside, Byron Crosby	D.C.
LL.B. 1949, The George Washington University	Md.	Woodward, Charles Byron	
Wood, Carolyn Diana		Woodward, John Richard	
		Woodward, Nancy Hank	Md.
		A.B. 1948, The George Washington University	
		Woodworth, Howard Hampton	Va.
		B.S. 1942, University of Minnesota	D.C.
		Woody, William Sterling	
		Wooldard, Edward Ray	



Woodridge, William Abbott	Va.	Wrobel, Joseph Norman	N.Y.
Wolf, Bertie Harold Reginald	Va.	Wrong, Elisabeth June	Canada
Wolf, Evelyn Rebecca	D.C.	A.B. 1947, University of Toronto	
Woolley, Ruth Conant	R.I.	Wroth, Ralph Lane	Pa.
Woolis, Elizabeth Burns	Va.	A.B. 1947, Kenyon College	
B.S. 1947, St. Joseph's College, Md.		Wu, George	Conn.
Woolis, Ruth Roberts	Va.	Wu, Hui Chen	China
B.S. 1947, St. Joseph's College, Md.		A.B. 1943, Tsing-Hua University,	
Woolis, William, Jr.	Va.	Peiping	
Woolwine, Mary Catherine	Tenn.	Wulf, James Theodore	Calif.
Worawan, Wibun Kiat	D.C.	Wulf, Margaret Ann	Nebr.
Worden, Dwight Geer	N.Y.	Wulf, Pearl Elizabeth	Va.
Worden, Hattie Trott	Fla.	Wurz, Nelson Hugh	D.C.
B.S. 1939, Florida State University		Wurzer, Rose Agnes	Fla.
Worlen, Yvonne Innes	D.C.	Wyatt, John Walton	
Workinger, George Samuel	Md.	B.S.E. 1938, Alabama State Teachers	
Worley, Barbara Anne	D.C.	College, Troy	
Worley, Richard Bryce	Okla.	LL.B. 1947, University of Florida	
Wormald, Marion Frances	Va.	Wyatt, Thomas Frederick	D.C.
B.S. 1948, Virginia Polytechnic		Wyche, Benjamin Walker	Va.
Institute		B.S. 1943, Virginia Polytechnic	
Woronoff, Leonard	D.C.	Institute	
Worthington, Elaine Roberta	N.M.	Wyche, Richard Thomas	Okla.
B.S. 1949, University of New Mexico		A.B. 1938, University of Oklahoma	
Worthington, John Taliaferro, Jr.	Va.	Wycherley, Herbert Alan	Md.
Wortman, David Morris	D.C.	A.B. 1936, A.M. 1938, University	
A.B. 1948, The George Washington		of Pennsylvania	
University		Wyckoff, Donald Latham	N.Y.
Wostein, Benjamin	D.C.	Wydler, Kenneth	D.C.
A.B. 1948, The George Washington		B.S. 1949, University of Rochester	
University		Wygod, Catherine	D.C.
Woulff, Benjamin Bernard	Va.	Wylic, John Worthington	D.C.
Woyan, Donald Clyde	Va.	Wyman, Alexander	D.C.
Wray, James Laban	Ark.	B.S. in Ch.E. 1935, Cooper Union	Mass.
Wray, James Ronald	D.C.	Wyman, Charles Malcolm	Kans.
B.S. 1945, M.S. 1948, University		Wymore, Max Lee	
of Chicago		B.S. in Ch.E. 1947, University of	
Wren, Donald George	Mo.	Kansas	
Wren, Marvin Robert	D.C.	Wynkoop, Jeanne Simonds	D.C.
Wright, Berkeley	D.C.	Wywill, Mildred Ellen	D.C.
Wright, Carney Willis	Tenn.		
Wright, Clifton Woodrow	D.C.		
Wright, Dale Alan	Tex.	Y	
B.S. 1948, Carnegie Institute of			
Technology			
Wright, Dalton Houston	La.	Yabroff, Bernard	Va.
B.S. 1940, Louisiana College		B.S.S. 1939, College of the City of	
A.M. 1948, The George Washington		New York	
University		Yadao, Elias Perfecto	Hawaii
Wright, Elizabeth Truman	Va.	A.B. 1949, University of Hawaii	
A.B. 1939, Allegheny College		Yager, David Eugene	Va.
Wright, Flor Alma	D.C.	Yager, Eugene F.	Va.
Wright, Frederick Grant, Jr.	D.C.	A.B. 1935, Concord College	
Wright, George Charles	D.C.	Yager, Helen Elizabeth	Va.
B.S. 1925, United States Naval		Yagerhofer, Fred Charles	D.C.
Academy		Yago, Marvin Harris	Md.
M.S. 1932, Columbia University		Yale, John Lewis	D.C.
Wright, Georgie Brown	Md.	B.S. 1939, Columbia University	
Wright, Harold Malcolm	D.C.	Yalom, Irvin David	D.C.
Wright, Katherine Louise	Ill.	Yalom, Isador David	D.C.
A.B. 1946, DeFauw University		B.S. 1948, The George Washington	
Wright, Pauline	D.C.	University	
A.B. 1949, Bucknell University		Yalom, Ruth	D.C.
Wright, Robert Clifford	Ohio	Yamada, Shizuo	Md.
Wright, Ruth	Ky.	Yamamoto, Joan Nickel	Md.
Wright, Virginia Lucille	D.C.	A.B. 1946, Antioch College	
Wright, Wayne Alard	Idaho	Yamulky, Perihan Aziz	D.C.
Wright, Willard Alden	Pa.	A.B. 1942, American University of	
Wright, William Warren	D.C.	Beirut, Lebanon	
B.S. in Ed. 1949, Capital University		Yanagi, Wallace Tadao	Hawaii
Wrigley, Ellen Rita	Va.	Yannella, Anthony	N.Y.
A.B. 1947, University of Virginia		Yanowitz, Arthur	N.Y.
B.L.S. 1948, University of Illinois		Yarbrough, Herbert Almon	Va.
		Yarbrough, Joseph Benjamin III	D.C.



Yarnoff, Leroy Mills	D.C.	You, James C.	D.C.
Yates, Charles Louis	Pa.	B.S. 1927, Central University, Nanking	
B.S. in E.E. 1948, Pennsylvania State College		M.S. 1939, London School of Economics	D.C.
Yates, John Russell, Jr.	Md.	Younes, William Gabriel	Ark.
Yates, William Avery, Jr.	Ga.	Young, Agnes June	Hawaii
Yatteau, John Allan	Md.	Young, Arthur Judson	Colo.
A.B. 1948, Columbia University		Young, Charles Cooper	Pa.
Yavener, Burton	N.J.	LL.B. 1926, University of Denver	W.Va.
Yavil, Minnie	Pa.	Young, Charles Edward	N.Y.
B.S. 1937, Temple University		Young, Craig Albertus	
A.M. 1949, The George Washington University		Young, David	
Yazel, Richard Alan	D.C.	B.M.E. 1949, Cooper Union	Mass.
Yazge, Irene Elizabeth	D.C.	Young, Dorothy Priscilla	D.C.
Yeager, Margaret Oliphant	D.C.	Young, Edward Everett, Jr.	Ohio
B.S. 1942, Purdue University		Young, George Ellis	Md.
Yeager, Mary Ann	D.C.	Young, George Wesley, Jr.	D.C.
Yeager, Philip Brand	Va.	Young, Ina Marie	Va.
A.B. 1939, University of Arizona		Young, Irene Bennett	
Yeakley, Elizabeth LeGrand	Va.	A.B. 1930, College of William and Mary	Ohio
B.S. 1940, State Teachers College, Farmville		Young, Jack Martin	
Yederlinic, Mario Anthony	Md.	B.S. in M.E. 1943, Case Institute of Technology	D.C.
Yednock, John Joseph	Pa.	Young, Jeanne Loring	D.C.
Yedziniak, Michael Aloysius	Conn.	Young, Kharmin Hudson	W.Va.
Yee, Florence Boccia	D.C.	Young, Maynard Fling	D.C.
Yee, Richard Hong	D.C.	Young, Norbert L.	Kans.
Yee, William	D.C.	Young, Norma Jean	Ohio
Yeide, Frank Rudolph, Jr.	Tex.	Young, Regina M.	
Yeldell, Fanny Fay		B.S. 1929, Ohio State University	
A.B. 1942, University of Texas	Md.	A.M. 1945, The George Washington University	D.C.
Yenchius, Mildred Mary	Pa.	Young, Robert	
A.B. 1939, Ohio State University		A.B. 1948, The George Washington University	D.C.
Yevick, John George	Fla.	Young, Robert Stanley	Va.
B.S. in E.E. 1934, Drexel Institute of Technology	Hawaii	Young, Sawyer Roger	Pa.
Yewell, Thomas Ballard	W.Va.	B.Arch. 1947, Yale University	Va.
Yim, William Harry	D.C.	Young, Thomas William	
A.B. 1949, University of Hawaii		Young, Virginia Gwathmey	
Yoakum, Cellie Marie		A.B. 1947, The George Washington University	Md.
Yobst, Vivian Marie	N.Y.	Young, William Harold	Md.
B.S. 1944, The George Washington University	Okla.	Youngblood, Ernest Isley	Md.
Yochem, Gerard M.		Younger, Edward Francis, Jr.	Tenn.
Yocum, Jack	Pa.	Younger, William Edward	
B.S. in Ed. 1943, University of Oklahoma	Ky.	B.B.A. 1948, University of Chattanooga	Calif.
Yocum, Myron Clair, Jr.	D.C.	Youngman, Wilbur Hughes, Jr.	Ohio
Yohe, Douglas Herbert	N.Y.	Younker, Leura	D.C.
Yokley, William Ross, Jr.	D.C.	Yount, Isabelle Henkel	Ohio
Yokoyama, Fuku	Md.	B.S. 1939, Wilson Teachers College	
Yolles, Dorothy	D.C.	Yount, Joseph Herman, Jr.	Va.
York, Robert	Ill.	A.B. 1948, Oberlin College	D.C.
York, Edgar Duane	Mo.	Yoursaw, Myron	Va.
York, Emil Conrad	Va.	Yowell, Arlene	
York, Jack	Tex.	Yowell, Earl Reddish	
York, Lawrence Robert	D.C.	B.S. 1949, The George Washington University	N.J.
York, Lolette Irving	D.C.	Yuhas, Olga	D.C.
York, Ody Dee	Nev.	Yuill, Charles Walter, Jr.	D.C.
York, Robert Lamar	Hawaii	Yurcessen, Marcella M.	Pa.
York, Warren Monroe, Jr.	Md.	B.E. 1940, Illinois State Normal University	Md.
Yorty, Robert Bell		Yuricek, Joseph	
Yoshimura, Sei	D.C.	Yurwitz, Julius Peter	
B.S. 1946, University of Hawaii	Va.	B.S. 1938, The George Washington University	
Yost, Charles Francis	D.C.		
B.S. 1947, The George Washington University			
Yost, Marguerite, Rosemary			
Yost, Oscar Perry			
B.S. 1949, Madison College			
Yost, William Adams	D.C.		



## Z

Zabiegalski, Anthony, Jr.	Pa.	Zervakos, Straty	Md.
A.B. 1949, Bucknell University		Zieg, Harry Eugene	D.C.
Zabitsky, Mae Lucretia		Ziegler, Herman Joseph	N.J.
Zablocki, Clement John	D.C.	Ziegler, Lavern Landis	Va.
Ph.B. 1936, Marquette University	Wis.	Ziegler, Norman Gene	D.C.
Zachary, Richard Eugene		Ziehl, Rolland Charles	Wis.
Zahn, Mallory Hufty	D.C.	Ziehl, Wilbur Henry	Md.
B.S. 1934, University of Virginia	D.C.	Ziff, Richard Newton	Conn.
Zajac, Mary Louise		Zigmond, Faye	D.C.
Zajic, Albert Henry	Pa.	Zilch, Helen Josephine	Md.
A.B. 1949, Oklahoma City University	Okla.	Zimmer, Culver Frain	D.C.
Zamansky, Eleanor Belle		Zimmer, David Joseph	Md.
Zamorski, Lucien Ira	D.C.	Zimmer, Patricia Ann	D.C.
Zanelli, Alfred	Iowa	Zimmerman, Donna B.	D.C.
Zanoff, Raymond David	N.Y.	Zimmerman, Harry Chalfant	D.C.
Zanoni, Candido Peter	D.C.	Zimmerman, Howard McCord	D.C.
Zapi, Thomas Lane	Minn.	Zimmerman, William III	Va.
Zaroff, Lawrence Irving	D.C.	A.B. 1949, The George Washington	
Zaroff, William Joseph	D.C.	University	
Zasada, Arthur Stephen	D.C.	Zinn, Myron Bernard	D.C.
Zasalicky, Richard Conrad	Va.	Zinn, Robert Blaine	Fla.
B.E. 1942, Yale University	Va.	Ziobro, Stanley Robert	N.J.
Zatz, Dorothy	Conn.	B.S. 1942, The George Washington	
Zavacky, Mary Theresa	D.C.	University	
Zayas, Edison Vladimiro	D.C.	Zipin, Pearl	Ohio
Zazetaki, Henry Bernard	D.C.	Zisk, Stanley Joseph	Mass.
A.B. 1949, Pennsylvania State College	Pa.	B.S. 1949, Georgetown University	
Zbylut, Chester Anthony		Zitomer, Joseph	D.C.
A.B. 1950, De Paul University	Ill.	Zolyak, John	Pa.
Zeh, Billy Reid		Zook, Benjamin Martin	Va.
Zeida, Eleanor Bessie	Va.	A.B. 1949, Harvard University	
Zeidner, Philip M.	D.C.	Zore, Nada Ana	D.C.
Zeigler, Joanna Elizabeth	N.Y.	Zorn, Otto Godfrey	N.Y.
Zelaska, Ralph Rudolph	D.C.	Zubeck, John Thomas	Pa.
B.S. 1940, The George Washington	Va.	Zubeck, Theresa	D.C.
University		Zucker, Bertram	N.Y.
Zelinski, John Ward		Zucker, Harold Scheff	D.C.
Zelkovitz, Sam	Ariz.	Zucker, Morton David	N.Y.
Zeller, George Joseph	Va.	Zuckerman, Martin Jay	N.J.
Zeller, Ethel	Pa.	Zugel, Francis Kopp	D.C.
A.B. 1941, Hunter College	N.Y.	Zugel, Mary Jean Edna	D.C.
Zellers, Robert Adam		Zuke, Walter	D.C.
LL.B. 1949, John B. Stetson	Fla.	B.S. 1938, Albright College	
University		Zulieve, Adele Esther	Mass.
Zembrzuski, Bruno John		Zuni, Jose Abe	N.M.
Zembrzuski, Eleanor Marie		B.B.A. 1949, University of New	
Zeno, Luis Antonio	Va.	Mexico	
A.B. 1945, University of Puerto	Va.	Zuppas, Simos	D.C.
Rico	Puerto Rico	LL.B. 1938, University of Athens,	
Zens, Robert Wilhenry		Greece	
Zentz, Gerald Lee	D.C.	Zurad, Bruno Hyacinth	Ill.
Zereth, Mortimer Morris	Md.	Zussman, Harriett Belle	Mich.
	D.C.	Zverina, George Francis	Md.
		Zweibel, Sidney A.	N.Y.
		Zysk, John Joseph	N.H.



## SUMMARY OF REGISTRATION

1949-50

### THE JUNIOR COLLEGE

	<i>Men</i>	<i>Women</i>	<i>Total</i>
Freshmen .....	1,011	592	1,603
Sophomores .....	1,418	653	2,071
	<hr/> 2,429	<hr/> 1,245	<hr/> 3,674

### COLUMBIAN COLLEGE

	<i>Men</i>	<i>Women</i>	<i>Total</i>
Juniors .....	345	226	571
Seniors .....	327	213	540
Candidates for the degree of Master of Arts....	272	120	392
Candidates for the degree of Master of Science..	67	42	109
	<hr/> 1,011	<hr/> 601	<hr/> 1,612

### THE GRADUATE COUNCIL

	<i>Men</i>	<i>Women</i>	<i>Total</i>
Candidates for the degree of Doctor of Philosophy	83	18	101

### THE SCHOOL OF MEDICINE

	<i>Men</i>	<i>Women</i>	<i>Total</i>
First Year .....	90	4	94
Second year .....	82	2	84
Third year .....	67	8	75
Fourth year .....	68	10	78
	<hr/> 307	<hr/> 24	<hr/> 331

### THE LAW SCHOOL

	<i>Men</i>	<i>Women</i>	<i>Total</i>
First year .....	860	63	923
Second year .....	543	30	573
Third year .....	448	18	466
Candidates for the degree of Master of Laws...	202	4	206
Candidates for the degree of Master of Comparative Law .....	16	2	18
Candidates for the degree of Doctor of Juridical Science .....	12	0	12
Unclassified .....	43	1	44
	<hr/> 2,124	<hr/> 118	<hr/> 2,242

### THE SCHOOL OF ENGINEERING

	<i>Men</i>	<i>Women</i>	<i>Total</i>
Freshmen .....	360	1	361
Sophomores .....	293	1	294
Juniors .....	230	1	231
Seniors .....	187	2	189
	<hr/> 1,070	<hr/> 5	<hr/> 1,075



## THE SCHOOL OF PHARMACY

	Men	Women	Total
Juniors .....	41	2	43
Seniors .....	19	1	20
	<hr/> 60	<hr/> 3	<hr/> 63

## THE SCHOOL OF EDUCATION

Juniors .....	50	65	115
Seniors .....	53	90	143
Candidates for the degree of Master of Arts.....	110	120	230
Candidates for the degree of Doctor of Education	32	10	42
	<hr/> 245	<hr/> 285	<hr/> 530

## THE SCHOOL OF GOVERNMENT

Juniors .....	435	55	490
Seniors .....	304	38	342
Candidates for the degree of Master of Arts....	230	40	270
	<hr/> 969	<hr/> 133	<hr/> 1,102

## THE DIVISION OF UNIVERSITY STUDENTS

University Students .....	3,027	1,739	4,766
---------------------------	-------	-------	-------

## THE DIVISION OF SPECIAL STUDENTS

Special Students .....	1,553	325	1,878
------------------------	-------	-----	-------

## SUMMARY

Students Registered, Academic Year 1949-50...	17,983	6,055	24,038
Students Registered, Summer Sessions 1949.....	7,987	1,771	9,758
Total Registration 1949-50 .....	<hr/> 25,970	<hr/> 7,826	<hr/> 33,796
Duplicate Registrations .....	13,091	3,330	16,421
Total Number of Students Registered 1949-50..	<hr/> 12,879	<hr/> 4,496	<hr/> 17,375

## TEACHING STAFF

Professors Emeritus .....	20
Professors .....	79
Adjunct Professors .....	16
Professorial Lecturers .....	63
Clinical Professors .....	26
Adjunct Clinical Professors .....	12
Associate Professors .....	44
Associate Clinical Professors .....	3
Associates in the School of Medicine .....	63
Assistant Professors .....	57



Assistant Clinical Professors .....	37
Lecturers .....	93
Instructors .....	40
Clinical Instructors .....	143
Research Associates .....	3
Associates .....	100
Fellows .....	36
Technical Assistants .....	11

## DEGREES CONFERRED

Associate in Arts.....	905
Bachelor of Arts.....	525
Bachelor of Arts in Education.....	44
Bachelor of Arts in Government.....	420
Bachelor of Science.....	91
Bachelor of Science in Engineering.....	26
Bachelor of Civil Engineering.....	29
Bachelor of Electrical Engineering.....	62
Bachelor of Mechanical Engineering.....	50
Bachelor of Science in Home Economics.....	9
Bachelor of Science in Pharmacy.....	44
Bachelor of Science in Physical Education.....	31
Bachelor of Laws.....	380
Juris Doctor .....	18
Master of Arts.....	76
Master of Arts in Education.....	84
Master of Arts in Government.....	50
Master of Science.....	33
Master of Comparative Law.....	4
Master of Laws.....	71
Doctor of Medicine.....	78
Doctor of Education.....	5
Doctor of Philosophy.....	7
	3,042

## GEOGRAPHICAL DISTRIBUTION OF STUDENTS

## UNITED STATES, TERRITORIES, AND POSSESSIONS

Alabama .....	73	Illinois .....	282
Arizona .....	22	Indiana .....	120
Arkansas .....	52	Iowa .....	134
California .....	211	Kansas .....	84
Colorado .....	57	Kentucky .....	85
Connecticut .....	160	Louisiana .....	55
Delaware .....	22	Maine .....	59
District of Columbia.....	5,704	Maryland .....	1,848
Florida .....	151	Massachusetts .....	348
Georgia .....	111	Michigan .....	149
Idaho .....	24	Minnesota .....	107



Mississippi .....	52	South Carolina .....	65
Missouri .....	120	South Dakota .....	34
Montana .....	36	Tennessee .....	122
Nebraska .....	74	Texas .....	187
Nevada .....	32	Utah .....	37
New Hampshire .....	39	Vermont .....	29
New Jersey .....	398	Virginia .....	2,778
New Mexico .....	41	Washington .....	61
New York .....	1,170	West Virginia .....	228
North Carolina .....	188	Wisconsin .....	93
North Dakota .....	32	Wyoming .....	18
Ohio .....	287	Alaska .....	5
Oklahoma .....	83	Hawaii .....	42
Oregon .....	32	Puerto Rico .....	34
Pennsylvania .....	969	Canal Zone .....	1
Rhode Island .....	62		

## FOREIGN COUNTRIES

Afghanistan .....	1	Iran .....	4
Argentina .....	1	Israel .....	2
Australia .....	1	Italy .....	1
Belgium .....	6	Korea .....	2
Bolivia .....	1	Lebanon .....	3
Brazil .....	2	Mexico .....	2
British Guiana .....	1	Netherlands .....	3
British West Indies .....	1	Netherlands West Indies .....	1
Canada .....	11	New Zealand .....	2
China .....	19	Norway .....	9
Colombia .....	4	Panama .....	1
Cuba .....	6	Peru .....	4
Cyprus .....	2	Philippines .....	13
Denmark .....	1	Poland .....	1
Egypt .....	3	Portugal .....	2
England .....	4	Siam .....	8
France .....	6	Sweden .....	1
Germany .....	3	Switzerland .....	2
Greece .....	2	Syria .....	1
Guatemala .....	2	Turkey .....	1
Hungary .....	1	Venezuela .....	2
India .....	16	Yugoslavia .....	1



## ALUMNI AND ALLIED ASSOCIATIONS

### THE GENERAL ALUMNI ASSOCIATION

The objects of this Association are to unite the graduates in closer sympathy and to promote the general welfare of the University. The following persons are eligible for *active* membership: graduates of any college, school, or division of the University; holders of honorary degrees from the University; and members of the Board of Trustees and of the Faculty of the University. Any person who has matriculated, who has been in regular attendance for one year, and who has left the University in good standing, is eligible for *associate* membership.

The Alumni Office is situated at 2018 I Street, Washington, D. C. Alumni are urged to keep the office informed of changes of address or occupation and to supply information with regard to their fellow alumni.

1950-51

*President.*—Elmer Louis Kayser, A.B. and T.D. 1917, A.M. 1918, LL.D. 1948 (Ph.D. 1932, Columbia University); 2921 34th Street, Washington, D. C.

#### *Vice Presidents:*

*Columbian College.*—James R. Kirkland, A.B. 1927, LL.B. 1928, LL.M. 1929 (B.C.S. 1931, Benjamin Franklin University); 1519 Underwood Street, Washington, D. C.

*Graduate Council.*—Orville E. May, A.B. 1924, M.S. 1926, Ph.D. 1929; 3449 Peachtree Road NE., Atlanta, Georgia.

*School of Medicine.*—Russell McNitt, M.D. 1925, B.S. in Med. 1925; 1801 I Street, Washington, D. C.

*Law School.*—Stanley J. Tracy, LL.B. 1925; Federal Bureau of Investigation, Washington D. C.

*School of Engineering.*—William S. James, B.S. in M.E. 1917; Fram Corporation, East Providence, Rhode Island.

*School of Pharmacy.*—Harold C. Kinner, Phar.G. 1928, B.S. in Phar. 1943; 5905 Riggs Road, Hyattsville, Md.

*School of Education.*—Elsie Green, A.B. 1914, A.M. 1928; 3151 Tennyson Street, Washington, D. C.

*School of Government.*—Louise McNutt, A.B. 1943; Shoreham Hotel, Washington, D. C.

*Dental School.*—C. Willard Camalier, D.D.S. 1912; 1726 I Street, Washington, D. C.

*Treasurer.*—Anna M. Bischoff, A.B. 1928; 2025 I Street, Washington, D. C.



*Executive Secretary.*—Lester Allan Smith, A.B. in L.S. 1932, A.M. in L.S. 1935; 2018 I Street, Washington, D. C.

*Executive Committee:*

Jessie Fant Evans (Mrs. Joshua Evans, Jr.), A.B. and T.D. 1913, Ed.D. 1932; 3405 Lowell Street, Washington, D.C.

May P. Bradshaw, A.B. 1909, A.M. 1913; 1631 S Street, Washington, D. C.

Alexander Wetmore, M.S. 1916, Ph.D. 1920, Sc.D. 1932 (A.B. 1912, University of Kansas); 204 Maple Avenue, Takoma Park, Maryland.

William M. Sweet, D.D.S. 1918; 1835 I Street, Washington, D. C.

Eugene S. Thomas, A.B. 1929 (M.B.A. 1934, Harvard University); Television Station WOIC, 40th and Brandywine Streets, Washington, D. C.

Helen Gladys Kain, B.S. 1917, M.D. 1923; 1801 I Street, Washington, D. C.

Otto Schoenfelder, A.B. in Govt. 1933, LL.B. 1942; Tax Court of the United States, Washington, D. C.

Charles S. Rhyne, LL.B. 1937; 730 Jackson Place, Washington, D. C.

Joseph Roe, Ph.D. 1923 (A.B. 1916, Roanoke College; A.M. 1917, Princeton University); 1352 Jefferson Street, Washington, D. C.

Willard L. Hart, LL.B. 1926 (B.S. 1919, Clemson Agricultural College); United States Court of Claims, Washington, D. C.

THE GEORGE WASHINGTON UNIVERSITY MEDICAL SOCIETY

The George Washington University Medical Society, the organization of graduates of the School of Medicine, was established in 1905 and since 1926 has been affiliated with the General Alumni Association. The objects of the Society, as stated in the constitution, are "The promotion of the science and art of medicine and the welfare of the School of Medicine."

1950-51

*President.*—Russell McNitt, M.D. 1925, B.S. in Med. 1925; 1801 I Street, Washington, D. C.

*President Elect.*—John Hugh Lyons, M.D. 1918, B.S. 1919; 1344 19th Street, Washington, D. C.

*First Vice President.*—Herman S. Hoffman, A.B. 1921, M.D. 1924; 3118 16th Street, Washington, D. C.

*Second Vice President.*—Elizabeth Parker, A.M. 1930, M.D. 1932 (A.B. 1924, Brenau College); Lebanon, Route 1, Lorton, Virginia.

*Secretary-Treasurer.*—Oscar B. Hunter, M.D. 1912, A.B. 1916, A.M. 1917; Suite 1000, Columbia Medical Building, Washington, D. C.



*Council:*

- Herbert S. Gates, M.D. 1923; 815 East Capitol Street, Washington D. C.  
 Fred A. J. Geier, M.D. 1925; 4948 Lowell Street, Washington, D. C.  
 J. Burton Glenn, M.D. 1921, B.S. 1921; 2015 Q Street, Washington, D. C.  
 Clyde P. Reeves, M.D. 1933; 1028 Connecticut Avenue, Washington, D. C.  
 James I. Boyd, A.B. 1923, M.D. 1926, M.S. 1927; 8200 Marlboro Pike SE., Washington, D. C.

## THE GEORGE WASHINGTON LAW ASSOCIATION

The George Washington Law Association, the organization of graduates of the Law School, was founded in 1912 and has been affiliated with the General Alumni Association since 1926. Its purposes as stated in the constitution are to promote high standards of legal education, to keep the alumni of the Law School in closer touch with one another and especially with members of their own classes, to gather and publish at intervals information as to the whereabouts and activities of these alumni, and to further the interests of the Law School.

1950-51

- President.*—Charles S. Rhyne, LL.B. 1937; 730 Jackson Place, Washington, D. C.  
*First Vice President.*—H. Cecil Kilpatrick, LL.B. 1922; American Security Building, Washington, D. C.  
*Second Vice President.*—Vernon Romney, LL.B. 1922; 212 Kearns Building, Salt Lake City, Utah  
*Third Vice President.*—Horace Lohnes, LL.B. 1924, LL.M. 1925; Munsey Building, Washington, D. C.  
*Secretary-Treasurer.*—Samuel C. Caldwell, LL.B. 1943; 1216 Tower Building, Washington, D. C.  
*Executive Committee:*  
 John J. Wilson, LL.B. 1921; 815 15th Street, Washington, D. C.  
 John C. Gall, LL.B. 1923; Commonwealth Building, Washington, D. C.  
 Mary Agnes Brown, A.B. 1924, LL.B. 1932, S.J.D. 1942; 4606 15th Street, Washington, D. C.  
 C. Oscar Berry, LL.B. 1932, A.B. 1933; 1100 H Street, Washington, D. C.

## THE LIBRARY SCIENCE ALUMNI ASSOCIATION

The Library Science Alumni Association was organized in 1932 by graduates of the Division of Library Science and became an affiliate of



the General Alumni Association in 1935. It was established to foster a closer relationship between the Faculty and graduates and to further the interests of the Division of Library Science and of the University as a whole.

1949-50

*President.*—Clara Egli LeGear (Mrs. Russell LeGear), A.B. in L.S. 1930, A.M. in L.S. 1936; 322 North Carolina Avenue SE., Washington, D. C.

*Vice President.*—John S. Moats, A.B. in L.S. 1932 (B.S. in Chem. Eng. 1928, Washington University); 7109 Harwick Road, Washington, D. C.

*Secretary.*—Helene Gingras, A.B. in L.S. 1932; 316 North Carolina Avenue SE., Washington, D. C.

*Treasurer.*—Minnie Wiener, A.B. in L.S. 1938 (B.S. in Ed. 1929, College of the City of New York; A.M. 1932, Hunter College); 1722 19th Street, Washington, D. C.

#### THE ENGINEER ALUMNI ASSOCIATION OF THE GEORGE WASHINGTON UNIVERSITY

The Engineer Alumni Association was organized in 1936 and has been affiliated with the General Alumni Association since that time. Its objects are to unite the graduates and Faculty of the School of Engineering in closer fellowship, to promote the general welfare of the School of Engineering and of the University at large, to foster activities of the engineering organizations recognized by the University, and to advance the profession of engineering in general.

1950-51

*President.*—Merwyn N. McKnight, Sr., B.S. in M.E. 1938, B.E.E. 1941; 1704 North Calvert Street, Arlington, Virginia.

*Vice President.*—George A. Kilpatrick, B.C.E. 1945; 1109 N. Tuckahoe Street, Falls Church, Virginia.

*Recording Secretary.*—James Sinsabaugh, B.M.E. 1949; Purcellville, Virginia.

*Corresponding Secretary.*—A. Benjamin Sorin, B.M.E. 1948; 1924 3rd Street, Washington, D. C.

#### Executive Committee:

William C. Thom, B.S. in C.E. 1904, C.E. 1905; 1346 Hemlock Street, Washington, D. C.

Benjamin C. Cruickshanks, Sr., B.S. in M.E. 1920; 5733 4th Street, Washington, D. C.

G. Chester Thom, B.S. in E.E. 1932, B.S. in M.E. 1934; 6326 32nd Street, Washington, D. C.



## THE GEORGE WASHINGTON UNIVERSITY NURSES ASSOCIATION

The George Washington University Nurses Association was organized in 1914. In 1936 this organization was made an integral part of the General Alumni Association, and graduates of the School of Nursing were accorded associate membership. The objects of the Association are to hold in unison the graduates of the George Washington University Hospital School for Nurses, to care for its sick members, and to promote the advance of nursing in the interest of the George Washington University Hospital.

1949-50

*President.*—Claudine C. Thomas (Mrs. Homer R. Thomas), N. Dip. 1927; 1714 N. Adams Street, Arlington, Va.

*Vice President.*—Mrs. Louva Baker, N. Dip. 1919; 1361 Iris Street, Washington, D. C.

*Secretary.*—Arabella Frye, Ex. 1933; 1301 Vermont Avenue, Washington, D. C.

*Treasurer.*—Ruth Marmaduke, N. Dip. 1929; 4730 16th Road N., Arlington, Va.

## REGIONAL ALUMNI CLUBS

Regional alumni clubs sponsored by the General Alumni Association are maintained in the following places: Little Rock, Ark.; Los Angeles, Calif.; Northern California; Denver, Colo.; Chicago, Ill.; Portland, Maine; Baltimore, Md.; Detroit, Mich.; Kansas City, Mo.; St. Louis, Mo.; Newark, N. J.; Brooklyn, N. Y.; New York, N. Y.; Cleveland, Ohio; Toledo, Ohio; the Ohio River Valley (Cincinnati and adjacent sections of Kentucky and Ohio); Oklahoma City, Okla.; Pittsburgh, Pa.; Dallas, Tex.; Salt Lake City, Utah; Richmond, Va.; Seattle, Wash.; Milwaukee, Wis.; New England; Philippine Islands; Puerto Rico.

Information about the officers and activities of these clubs may be obtained from the Director of Alumni Relations of the University.

## THE GRADUATE ENDOWMENT FUND

The Graduate Endowment Fund was founded by the class of 1926 with the object of providing endowment to be used for the development of the University. Membership is limited to seniors and graduates who sign a pledge of \$100, payable annually in ten equal installments.

The pledge notes and funds are held in trust. When the principal reaches the sum of \$100,000, the Board of Administrators of the Fund may pay to the University such sums as it may vote for erection of buildings, acquisition of sites, maintenance, and purchase of equipment.



At no time may money be drawn so as to leave a balance of less than \$50,000 on deposit.

On request, the Director of Alumni Relations of the University will furnish pledge blanks to alumni.

### THE COLUMBIAN WOMEN

The objects of this organization are (1) the promotion of acquaintanceship among its members; (2) the advancement of women by the founding of scholarships in the various departments of the University; and (3) the promotion of the interests of the University.

### MEMBERSHIP

1. The following persons shall be eligible for active membership: (a) any woman who for one year has been a regularly registered student in The George Washington University, provided that she shall have received credit for thirty hours of work; (b) any woman member of the Faculties or Board of Trustees, any woman on the administrative staff; the wife of any member of the Faculties, Board of Trustees, or of the administrative staff; (c) any woman recipient of an honorary degree from the University.

### 1949-50

*President.*—Irene Pistorio, B.S. in Arch. 1904; 2442 20th Street, Washington, D. C.

*First Vice President.*—Arlene Dufour, A.B. and B.Dip. in Ed. 1920, A.M. 1932; 1831 Kilbourne Place, Washington, D. C.

*Second Vice President.*—Winifred Alvather, B.S. in H.E. 1942; 3521 W Place, Washington, D. C.

*Corresponding Secretary.*—Elizabeth E. Benson, A.B. in Ed. 1931 (A.M. 1931 Gallaudet College; LL.B. 1932, Washington College of Law); Gallaudet College, Florida Avenue at 7th Street NE., Washington, D. C.

*Assistant Corresponding Secretary.*—Mrs. John Bruce Handy, A.B. 1914; 100 5th Street NE., Washington, D. C.

*Recording Secretary.*—Mrs. J. Beaty Griffith, A.B. 1922; 1746 K Street, Washington, D. C.

*Treasurer.*—Mrs. George Blanchard, A.B. 1916; 806 Massachusetts Avenue NE., Washington, D. C.

*Historian.*—Elizabeth S. Mewshaw, A.B. in Ed. 1932, A.M. 1934; 2127 California Street, Washington, D. C.



# THE WOMEN'S BOARD OF THE GEORGE WASHINGTON UNIVERSITY HOSPITAL

The object of this organization is to aid in every way the interests and advancement of The George Washington University Hospital. Meetings are held on the first Wednesday of each month, October to June, inclusive. Inquiries regarding membership should be addressed to the Corresponding Secretary, The George Washington University, Washington 6, D. C.

1950-51

- President.*—Mrs. Cloyd Heck Marvin  
*Vice President.*—Mrs. Wilbur Carr  
*Vice President.*—Mrs. Gilbert Grosvenor  
*Vice President.*—Mrs. Walter A. Bloedorn  
*Recording Secretary.*—Mrs. Everett Johnson  
*Corresponding Secretary.*—Mrs. Wolfram Legner  
*Assistant Corresponding Secretary.*—Mrs. William Y. Handy  
*Treasurer.*—Mrs. John Withrow Brewer  
*Assistant Treasurer.*—Mrs. Barton W. Richwine



THE COMPTROLLER OF THE CURRENCY

WASHINGTON, D. C.

Report of the Comptroller

for the year ending

June 30, 1901



# THE WOMEN'S BOARD OF THE GEORGE WASHINGTON UNIVERSITY HOSPITAL

The object of this organization is to aid in every way the advancement of The George Washington University Hospital. Meetings are held on the first Wednesday of each month, October to June, inclusive. Inquiries respecting membership should be addressed to Corresponding Secretary, The George Washington University, Washington, D. C.

1930-31

- President—Mrs. Gerald Reed Shreve
- Vice President—Mrs. William C. Hall
- Vice President—Mrs. Oliver C. Grosvenor
- Vice President—Mrs. Walter A. Brewster
- Recording Secretary—Mrs. Everett Johnson
- Corresponding Secretary—Mrs. William Leggett
- Financial Corresponding Secretary—Mrs. William F. Hays
- Treasurer—Mrs. John William Brewer
- General Treasurer—Mrs. Barton W. Richards



THE GEORGE WASHINGTON UNIVERSITY  
WASHINGTON, D. C.

Report of the Comptroller  
FOR THE YEAR ENDED  
AUGUST 31, 1950



RECEIVED 31 1820

FOR THE DEPT. OF THE

RECORDS OF THE COMMISSIONER

WASHINGTON, D. C.

THE GEORGE WASHINGTON UNIVERSITY



# EXHIBITS

A	Balance Sheet.....	12
B	Summary of Current Operating Income and Expense.....	14
B	Summary of Current Funds Unrestricted Surplus.....	15
C	Summary of Current Funds Restricted.....	16
D	Summary of Loan Funds Principal.....	17
E	Summary of Endowment Funds Principal.....	18
F	Summary of Plant Funds Principal.....	19
G	Summary of Net Investment in Plant.....	20

## SCHEDULES

1	Current Operating Income.....	22
2	Current Operating Expense.....	29
3	Miscellaneous Assets and Liabilities.....	40
4	Assets of Loan Funds.....	41
5	Assets of Endowment Funds—Controlled by the University.....	42
6	Endowment Funds—Controlled by Other Trustees.....	49
7	Assets of Plant Funds.....	50
8	Land and Buildings.....	52
8	Trust Notes Payable.....	58
9	Equipment.....	59
10	Current Funds Restricted—Organized Research.....	60
	"    "    Investment Income.....	64
	"    "    Miscellaneous Funds.....	68
	"    "    Agency Funds.....	70
11	Changes in Principal of Loan Funds.....	71
12	Changes in Principal of Endowment Funds.....	72
13	Changes in Principal of Plant Funds.....	78

## APPENDIX

Gifts and Grants.....	80
Description of Loan, Endowment, and Plant Funds.....	83



INDEX OF LOAN, ENDOWMENT, AND PLANT FUNDS

Acker.....	84	King Fellowship.....	86
Alumni Unrestricted Endowment.....	84	Knapp.....	91
Alumni Professorship.....	86	Kulhbank.....	89
Andrews.....	90	Larner.....	95
Bartsch.....	90	Law School Expansion.....	96
Borden.....	87	Lewis.....	87
Brown.....	91	Library Books.....	96
Burns.....	94	Meyer Library.....	89
Burton.....	88	Morhouse.....	92
Campaign.....	84	National Park Seminary.....	89
Carr.....	90	Noyes Library.....	89
Carroll.....	86	Ordronaux.....	95
Carter, H. H.....	90	Pairo.....	97
Carter, M. M.....	90	Pearson.....	92
Chamberlin.....	91	Powell.....	93
Chapman.....	88	Reichelderfer.....	85
College Women's.....	91	Reinhardt.....	89
Collins.....	87	Reserves for Protection of Investments.....	
Columbian Women Funds.....	91	Consolidated Endowment.....	95
Congressional.....	86	Consolidated Plant.....	97
Cooper.....	87	Scottish Rite.....	95
Corcoran.....	84	Ruggles.....	95
Cowles.....	94	Sanders Unrestricted Endowment.....	85
Croissant.....	94	Sanders Fellowship.....	86
Cutter.....	94	School of Engineering Building.....	97
D. C.—D. A. R. Endowment.....	88	School of Medicine Endowment.....	87
D. C.—D. A. R. Loan.....	83	School of Medicine Building.....	97
Davis Unrestricted Endowment.....	84		
Davis Prize.....	94		
Davis Scholarship.....	92		
Depew.....	86		



Dorsey.....	92	Scottish Rite.....	87
Elton.....	86	Sharpe.....	87
Essary.....	94	Shepard.....	93
Evans.....	94	Spencer.....	93
Farnham.....	92	Staughton-Elton.....	95
Field House.....	96	Sterrett.....	95
Fitch.....	94	Stone.....	93
Founders of Columbian Women.....	91	Subscription Gifts.....	85
Fry.....	86	Sutherland.....	83
Gardner.....	87	Swisher Alcoe Book.....	89
General Hospital.....	88	Swisher Prize.....	95
George Washington Law Association Loan.....	83	Swisher Scholarship.....	93
George Washington Memorial.....	96	Syms.....	85
Gibbs.....	87	Teller.....	85
Goddard Endowment.....	84	Tree.....	89
Goddard Prize.....	94	Trustees.....	85
Graduate.....	88	University Loan.....	83
Haggett.....	84	Walker.....	93
Hampel.....	92	Walsh.....	95
Harris.....	83	War Loan.....	83
Harvey.....	92	Weddell Unrestricted Endowment.....	85
Hazelton.....	92	Weddell Prize.....	95
Herron.....	91	Willard Association.....	85
Home Economics Loan.....	83	Wilson.....	91
Houser.....	88	Withers.....	85
Howard Library.....	89	Withington.....	93
Hubbard.....	95	Women's Activities Building.....	97
Kellogg Loan.....	83	Women's Board Gift Shop Equipment.....	97
Kendall.....	92	Woodbury.....	89
Kimmel.....	88	Woodhull Unrestricted Endowment.....	85
King Unrestricted Endowment.....	84	Woodhull Scholarship.....	93
		Yulee.....	86



## LETTER OF TRANSMITTAL

November 15, 1950

TO THE PRESIDENT AND THE BOARD OF TRUSTEES  
THE GEORGE WASHINGTON UNIVERSITY  
WASHINGTON, D. C.

GENTLEMEN:

I am submitting herewith the Report of the Comptroller of The George Washington University for the fiscal year ended August 31, 1950. This report is a review of the budget operations for the year and is based on the budget approved by the Board of Trustees of the University.

The accounts of the University are kept and its financial reports set up as far as practicable in conformity with the recommendations of the National Committee on Standard Reports for Institutions of Higher Education. Under that plan the funds of the University are classified in various fund groups, and the accounts and financial statements are set up to segregate clearly the assets and liabilities of each of these groups as indicated in the balance sheet, Exhibit A.

R. G. Rankin & Co. have examined the accounts of the University for the past year, and their certificate is submitted herewith.

A condensed summary of the principal facts in the report is presented below and on succeeding pages, followed by detailed Exhibits and Schedules.

Respectfully submitted,  
HENRY W. HERZOG  
Comptroller



CONDENSED SUMMARY  
CURRENT FUNDS—UNRESTRICTED

These Funds represent unrestricted assets which are available for immediate use in the current operation of the University. Operating Income for the Year (Exhibit B and Schedule 1) ..... 7,126,288.19  
Operating Expense for the Year (Exhibit B and Schedule 2) ..... 6,431,245.85  
Excess of Current Operating Income over Current Operating Expense (Exhibit B) ..... 695,042.34

The latter amount was added to Current Funds Unrestricted Surplus. Surplus at the end of the year amounted to \$460,914.87 (Exhibit B). During the year there was transferred from Surplus to Net Investment in Plant \$836,936.16 for the purchase of land and buildings, \$139,531.09 for the purchase of equipment, and \$7,527.07 for the reduction of trust notes payable.

Prepaid Expense of \$197,621.31 includes inventories of \$76,015.44 at the University and \$121,605.87 at the Hospital (Schedule 3).

Deferred Charges include \$200,485.46 net loss on the operation of the Hospital for the years 1947-48 through 1949-50, and \$187,674.25 representing Hospital Equipment purchased by the University in excess of the amount paid for from receipts of the Hospital Equipment Fund (Exhibit A). The latter item is fully explained on page 9.

Accounts Receivable in the amount of \$614,290.48 include \$264,740.14 due from the Veterans Administration under the "GI Bill of Rights," \$86,127.31 from the U. S. Government under research contracts, and \$283,695.26 due the Hospital (Schedule 3). Of this latter amount \$200,110.54 is due from patients still in the Hospital, and from Group Hospitalization and other agencies under contracts. The balance of \$83,631.92 represents doubtful and delinquent accounts against which a Provision for Doubtful Accounts of \$35,000 has been charged to current operations.

The Notes Payable of \$700,000 were paid in full on or before October 25, 1950 (Exhibit A).

CURRENT FUNDS—RESTRICTED

Research grants, investment income, gifts, and agency funds comprise these funds which consist of currently expendable assets, limited as to disposition (Exhibit C and Schedule 10).

During the year restricted gifts and grants for use as specified amounted to \$585,347.10 (page 80). Restricted endowments earned \$87,519.40. Unexpended Restricted and Agency Funds totaled \$285,355.63 (Exhibit C).



## LOAN FUNDS

For the assistance of students seeking financial aid, loan funds have been established by the University and other organizations (Schedule 11). Loans are made at a low rate of interest and when repaid the interest is added to the principal of the funds.

During the year, 161 loans were made to students. Loan Funds totaled \$37,289.00 (Exhibit D).

## ENDOWMENT FUNDS

The principal of all endowment funds amounted to \$2,917,040.75, an increase of \$20,496.13 (Exhibit E). These funds are represented by assets which, under the terms of wills, deeds of gift, or under the by-laws of the University, must be held in perpetual trust for income-producing purposes. The principal amount and changes during the year of every endowment fund are recorded in Schedule 12. A description of the funds begins on page 84.

"Consolidated Endowment Funds" consisted of ninety-four endowments with a total value of \$1,521,595.73 (Schedule 5—Page 2). The assets of these funds are combined to eliminate the possibility of partial or total loss of any fund through the failure of a specific investment, and to avoid temporary suspension of income and the carrying of uninvested small cash balances, and to give equality of treatment to all funds. Unless otherwise restricted by the donors, the assets of all new endowments are added to the assets of the Consolidated Endowment Funds.

Reserves for Protection of Investments were as follows: Consolidated Endowment Funds, \$68,007.45; Scottish Rite Fund, \$59,909.38 (Schedule 12—Page 3).

Earnings of Consolidated Endowment Funds are recorded in one income account and at the end of the year are distributed to the participating funds in the proportion each fund bears to the total of the entire group. The rate of return on the investments of these funds amounted to 4.5891% during the past year and, after deducting 10% as a reserve against losses (Schedule 12—Page 3), was distributed at the rate of 4.1302%.

The Scottish Rite Endowment Fund earned 3.7961% net income on its investments during the year just ended.

Net income of all endowment funds for the year was \$114,144.01 (Schedule 10—Page 4).

Pledges to the School of Medicine Endowment Fund on August 31, 1950, totaled \$155,934.00.







# PLANT FUNDS—INVESTED IN PLANT

The investment in the physical plant of the University is analyzed as follows:

EXHIBITS A, B, AND G, SCHEDULES 8 AND 9	BALANCE AUGUST 31, 1949	NET ADDITIONS	REDUCTIONS	BALANCE AUGUST 31, 1950
LAND AND BUILDINGS.....	14,962,026.09	776,936.16	.....	15,738,962.25
EQUIPMENT.....	1,884,332.64	117,631.51	.....	2,001,964.15
TRUST NOTES PAYABLE.....	307,436.36	.....	7,527.07	299,909.29
NET INVESTMENT IN PLANT.....	16,538,922.37	902,094.74	.....	17,441,017.11



## AUDIT CERTIFICATE

November 15, 1950

TO THE PRESIDENT AND THE BOARD OF TRUSTEES  
THE GEORGE WASHINGTON UNIVERSITY  
WASHINGTON, D. C.

We have examined the balance sheet of THE GEORGE WASHINGTON UNIVERSITY as of August 31, 1950, and the related statements of current operating income and expense, current funds surplus, and other fund transactions for the fiscal year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. It was not practicable to confirm receivables from United States Government Agencies, but we have applied other auditing procedures in verification of this asset.

In our opinion, the balance sheet and related statements of current operating income and expense, current funds surplus, and other fund transactions included in the accompanying REPORT OF THE COMPTROLLER OF THE UNIVERSITY, present fairly the financial position of THE GEORGE WASHINGTON UNIVERSITY as of August 31, 1950, and the results of its operations for the fiscal year then ended, in conformity with generally accepted principles of university and college accounting applied on a basis consistent with that of the preceding year.

R. G. RANKIN & Co.  
CERTIFIED PUBLIC ACCOUNTANTS



# THE GEORGE WASHINGTON UNIVERSITY

## BALANCE SHEET

August 31, 1950

### ASSETS

CASH.....	66,511.81
ACCOUNTS RECEIVABLE (Schedule 3).....	614,290.48
PREPAID EXPENSE (Schedule 3)...	197,621.31
DEFERRED CHARGES (Page 7)	200,485.46
Hospital Deficit.....	187,674.25
Hospital Equipment.....	

### LIABILITIES

### UNRESTRICTED

NOTES PAYABLE—Riggs National Bank. Due on or before No- vember 29, 1950. Interest 3%	700,000.00
ACCOUNTS PAYABLE.....	46,183.87
DEFERRED INCOME (Schedule 3)	59,484.57
SURPLUS (Exhibit B).....	460,914.87

1,266,583.31

### RESTRICTED

CASH.....	231,305.63	
INVENTORY—GIFT SHOP.....	4,050.00	
U. S. A. SAVINGS BONDS Series G, 2 1/2%, due 11-1-54..	50,000.00	
	285,355.63	PRINCIPAL OF FUNDS (Exhibit C).....
		285,355.63

### LOAN FUNDS

CASH.....	21,787.14	
LOANS RECEIVABLE (Schedule 4)	15,501.86	
	37,289.00	PRINCIPAL OF FUNDS (Exhibit D).....
		37,289.00



### ENDOWMENT FUNDS

CASH.....	37,931.15	
INVESTMENTS (Schedule 5).....	2,543,573.96	
	2,581,505.11	
CONTROLLED BY OTHER TRUSTEES (Schedule 6).....	335,535.64	2,917,040.75
	<u>2,917,040.75</u>	

PRINCIPAL OF FUNDS (Exhibit E)..... 2,917,040.75

### PLANT FUNDS

#### UNEXPENDED

CASH.....	24,302.30	
INVESTMENTS (Schedule 7).....	268,839.34	
	<u>293,141.64</u>	

PRINCIPAL OF FUNDS (Exhibit F)..... 293,141.64

#### INVESTED IN PLANT

LAND AND BUILDINGS (Schedule 8).....	15,738,962.25	
EQUIPMENT (Schedule 9).....	2,001,964.15	
	<u>17,740,926.40</u>	

#### TRUST NOTES PAYABLE (Schedule 8).....

NET INVESTMENT (Exhibit G) .. 17,441,017.11

299,909.29

17,740,926.40

TOTAL.....	<u>22,540,336.73</u>	<u>22,540,336.73</u>
------------	----------------------	----------------------

EXHIBIT A



## For the Year Ended August 31, 1950

INCOME (Schedule 1)		
Educational and General		
Student Fees	3,337,749.96	
Investments	99,242.82	
Gifts	540,880.24	
Grants for Organized Research	147,320.73	
Miscellaneous Sources	2,688,324.57	
Activities Relating to Instruction—Hospital	18,004.03	
“		
Auxiliary Enterprises	2,706,328.60	
		6,831,522.35
		<u>294,765.84</u>
		7,126,288.19
EXPENSE (Schedule 2)		
Educational and General		
Administration and General	654,096.43	
Instruction	1,735,912.27	
Organized Research	532,535.86	
Libraries	82,137.71	
Maintenance and Operation of Plant	383,877.17	
Miscellaneous	261,058.54	
Activities Relating to Instruction—Hospital	2,590,549.67	
“		
Other	2,572,545.64	
Auxiliary Enterprises	18,004.03	
Non Educational		
		6,240,167.65
		235,686.99
		<u>46,691.01</u>
		6,522,545.65
		<u>91,299.80</u>
		6,431,245.85
Less reimbursement for overhead included above		
EXCESS OF CURRENT OPERATING INCOME OVER CURRENT OPERATING EXPENSE (see below)		695,042.34



# SUMMARY OF CURRENT FUNDS UNRESTRICTED SURPLUS

For the Year Ended August 31, 1950

668,870.85

BALANCE AUGUST 31, 1949.....

## ADDITIONS

Excess of Current Operating Income over Current Operating Expense (see above)..... 695,042.34  
 Deferred Charge—Hospital Equipment. To be recovered in subsequent years from gifts and other income. Cumulative balance reported on Exhibit A; explanation on page 7.... 28,398.02  
 Reimbursement for depreciation on hospital building and equipment (Exhibit G)..... 168,000.00  
 Reimbursement for sale of Student Club Equipment..... 165.00  
 Reimbursement for expenditures made prior to September 1, 1949..... 211.91  
 George Washington Memorial Fund (Schedule 13).....

891,817.27  
1,560,688.12

## DEDUCTIONS

Reduction of Deferred Charge—Hospital Deficit. Excess of Hospital Income over Hospital Expense. Cumulative balance reported on Exhibit A; explanation on page 7..... 115,778.93  
 Transferred to Net Investment in Plant—Exhibit G.....  
 Land and Buildings..... 836,936.16  
 Equipment..... 139,531.09  
 Reduction of Trust Notes Payable.....  
 Trust Notes Payable August 31, 1949..... 307,436.36  
 Trust Notes Payable August 31, 1950..... 299,909.29

7,527.07  
1,099,773.25

BALANCE AUGUST 31, 1950—EXHIBIT A.....

460,914.87

EXHIBIT B



# SUMMARY OF CURRENT FUNDS RESTRICTED

For the Year Ended August 31, 1950

	TOTAL	ORGANIZED RESEARCH	INVESTMENT INCOME	MISCEL- LANEOUS	AGENCY
BALANCE AUGUST 31, 1949.....	244,969.24	165,939.76	50,181.39	14,661.86	14,186.23
ADDITIONS (Schedule 10)					
Gifts and grants.....	583,800.10	549,919.10	120,712.90	33,881.00	
Investment income.....	120,712.90				30,458.95
Deposits.....	30,458.95			27.25	
Other.....	27.25				
	<u>734,999.20</u>	<u>549,919.10</u>	<u>120,712.90</u>	<u>33,908.25</u>	<u>30,458.95</u>
DEDUCTIONS (Schedule 10)					
Salaries.....	328,564.96	328,564.96		551.60	
Expense.....	204,522.50	203,970.90		195.00	
Prizes.....	1,038.80		843.80	792.00	
Scholarships.....	4,065.00		3,273.00		
Bronze tablet for memorial.....	135.00		135.00		
Transferred to					
Exhibit G—Net Investment in Plant.....	211.05		211.05		
Schedule 1—Current Operating Income.....	108,278.82		100,441.50	7,837.32	
Schedule 11—Loan Funds.....	206.51		206.51		
Schedule 12—Endowment Funds.....	9,813.88		8,813.88	1,000.00	
Schedule 13—Plant Funds.....	3,644.00		3,619.00	25.00	
Refunded to donor.....	173.60			173.60	
Withdrawals.....	33,958.69				33,958.69
	<u>694,612.81</u>	<u>532,535.86</u>	<u>117,543.74</u>	<u>10,574.52</u>	<u>33,958.69</u>
BALANCE AUGUST 31, 1950—EXHIBIT A.....	285,355.63	183,323.00	53,350.55	37,995.59	10,686.49



SUMMARY OF LOAN FUNDS PRINCIPAL

For the Year Ended August 31, 1950

BALANCE August 31, 1949.....	37,518.00
APPROPRIATIONS (Schedule 11)	
Income of D.C.—D.A.R. Endowment Fund.....	206.51
Gifts.....	446.37
Interest on loans.....	227.30
	<hr/>
	880.18
	<hr/>
	38,398.18
DEDUCTIONS (Schedule 11)	
Refunded to United States Government.....	1,109.18
	<hr/>
BALANCE August 31, 1950—EXHIBIT A.....	37,289.00
	<hr/>
	<hr/>

EXHIBIT D



# SUMMARY OF ENDOWMENT FUNDS PRINCIPAL

For the Year Ended August 31, 1950

BALANCE AUGUST 31, 1949..... 2,896,544.62

## ADDITIONS (Schedule 12)

Gifts.....	16,877.00	
Investment income.....	15,436.57	
Gain on sale of investments.....	4,912.31	
Transferred from Schedule 10—Page 5.....	1,000.00	38,225.88

## DEDUCTIONS (Schedule 12)

Loss on sale of investments.....	6,436.71	
Transferred to Organized Research—Schedule 10—Page 1.....	11,293.04	17,729.75
		<u>20,496.13</u>

BALANCE AUGUST 31, 1950—EXHIBIT A..... 2,917,040.75



SUMMARY OF PLANT FUNDS PRINCIPAL

For the Year Ended August 31, 1950

BALANCE AUGUST 31, 1949..... 240,261.62

ADDITIONS (Schedule 13)

Gifts..... 73,156.40  
Investment income..... 5,822.47  
Gain on sale of investments..... 2,721.32  
Transferred from Schedule 10—Page 5..... 25.00  
81,725.19

DEDUCTIONS (Schedule 13)

To reduce Deferred Charge—Hospital Equipment (page 9)..... 6,530.90  
Transferred to Surplus—Exhibit B..... 211.91  
Equipment—Invested in Plant—Exhibit G..... 22,102.36  
52,845.17

BALANCE AUGUST 31, 1950—EXHIBIT A..... 293,141.64

EXHIBIT F



# SUMMARY OF NET INVESTMENT IN PLANT For the Year Ended August 31, 1950

BALANCE AUGUST 31, 1949.....	16,538,922.37
ADDITIONS	
Reduction of Trust Notes Payable (Exhibit B).....	7,527.07
Land and Buildings (Schedule 8)	
Current Funds Unrestricted Surplus (Exhibit B).....	836,936.16
Equipment (Schedule 9)*	
Current Funds Unrestricted Surplus (Exhibit B).....	139,531.09
Current Funds Restricted (Exhibit C).....	211.05
Plant Funds (Exhibit F).....	22,102.36
Departments (Schedule 2—Page 6).....	71,814.87
	<u>233,659.37</u>
	1,078,122.60
	<u>17,617,044.97</u>
DEDUCTIONS	
Provision for Depreciation—Hospital (Schedules 2 and 8)—Exhibit B.....	60,000.00
Provision for Depreciation—Hospital Equipment (Schedules 2 and 9)—Exhibit B..	108,000.00
Sale of Student Club Equipment (Schedule 9).....	<u>165.00</u>
Loss on sale of Student Club Equipment (Schedule 9).....	7,862.86
	<u>*8,027.86</u>
	176,027.86
BALANCE AUGUST 31, 1950—EXHIBIT A.....	<u>17,441,017.11</u>



## SCHEDULES



**CURRENT OPERATING INCOME**  
For the Year Ended August 31, 1950

**EDUCATIONAL AND GENERAL**

**STUDENT FEES**

Tuition and Laboratory

Junior College.....	711,188.61
Columbian College.....	368,499.39
Graduate Council.....	16,166.00
School of Government.....	191,038.16
Division of Special Students.....	198,986.29
" University Students.....	308,394.85
	<u>1,794,273.30</u>

Law School.....	398,920.80
" Education.....	84,293.81
" Engineering.....	215,085.72
" Medicine.....	216,790.00
" Pharmacy.....	25,808.50
	<u>940,898.83</u>
	<u>2,735,172.13</u>

Summer Sessions—Junior College.....	97,765.96
" Columbia College.....	67,255.08
" Graduate Council.....	2,957.63
" School of Government.....	52,233.40
" Division of Special Students.....	35,827.22
" University Students.....	100,957.25
" Law School.....	93,921.50
" School of Education.....	25,084.65
" Engineering.....	25,369.30
" Pharmacy.....	588.00
	<u>501,959.99</u>

Unallocated—Old Fees.....

677.34

3,237,809.46



Miscellaneous Fees

Application.....	32,267.35
Aptitude Tests.....	873.00
Art Validation.....	412.50
Binding Theses.....	652.00
Breakage.....	268.00
Graduation.....	51,835.00
Late.....	1,135.00
Library Fines.....	885.55
Publication of Theses.....	600.00
Reinstatement.....	700.00
Service.....	1,543.00
Special Examinations.....	350.00
Student Bar Association.....	6,586.00
Transcripts.....	1,833.10
	<hr/>
	99,940.50 3,337,749.96



CURRENT OPERATING INCOME (Continued)  
For the Year Ended August 31, 1950

EDUCATIONAL AND GENERAL (Continued)

INVESTMENT INCOME (Schedule 10)		
Endowment Funds—Unrestricted.....	26,624.61	
“ “ Restricted.....	69,668.32	
Plant Funds—Restricted.....		96,292.93
		<u>2,949.89</u>
		99,242.82

GIFTS

Restricted		
Schedule 10 (portion used)		
Cullen, Frederick J.....	42.20	
D. C. Women's Pharmaceutical Auxiliary.....	64.40	
Freeman and Watts, Drs.....	600.00	
Markle Foundation.....	5,833.24	
Patent Law Foundation.....	1,024.14	
Research in Surgery.....	190.40	
Other (page 80).....		7,754.38
		<u>590.00</u>
		8,344.38

GRANTS FOR ORGANIZED RESEARCH (Schedule 10)

Deferred from 1948-49.....	165,939.76	
Income 1949-50.....	549,919.10	
Deferred to 1950-51.....		715,858.86
		<u>183,323.00</u>
		532,535.86



MISCELLANEOUS SOURCES

Audio Visual Aids.....	925.67
Discounts Earned.....	4,355.17
Homecoming Celebration.....	3,127.38
Miscellaneous Income.....	2,050.31
Reading Clinic.....	1,295.00
Rent on University Property—Net.....	54,532.31
Speech Clinic.....	3,317.00
University Press—Schedule 10.....	82.94
“ Other.....	10.25
Veterans Administration—Handling Fee.....	93.19
	<u>49,687.83</u>

Student Activities

Athletic Programs.....	3,371.83
Law Review.....	2,195.69
University Players.....	4,141.40
Student Council.....	
Book Exchange.....	2,429.72
Cherry Tree (portion used).....	6,981.35
Colonial Review (portion used).....	345.83
Glee Club.....	52.80
Hatchet.....	7,383.55
Junior Class (portion used).....	14.00
Miscellaneous.....	522.59
Senior Class (portion used).....	498.11
	<u>18,227.95</u>
	<u>27,936.87</u>
	<u>147,320.73</u>



**CURRENT OPERATING INCOME (Continued)**  
For the Year Ended August 31, 1950

**EDUCATIONAL AND GENERAL (Continued)**

**ACTIVITIES RELATING TO INSTRUCTION—HOSPITAL**

Room Charges	400,792.70
Private Rooms	736,848.90
Semi-Private Rooms	178,233.30
Wards	80,176.10
Nursery	1,396,051.00
<hr/>	
Special Service Departments	151,734.00
Operating Rooms	70,720.00
Delivery Rooms	187,362.00
Anesthesia	145,107.40
X-Ray	59,480.90
Physical Medicine	189,890.75
Laboratories—Tests	30,933.00
" Pathology	10,856.50
" Electrocardiographs	163,012.29
Pharmacy	81,115.10
Medical and Surgical Supplies	29,447.37
Oxygen	3,125.25
Baby Beds	12,627.50
Electroencephalography	715.00
Blood Plasma	1,136,127.06
<hr/>	
Out-Patient Department	43,859.48
Clinic	12,703.92
Emergency	19,383.48
Ophthalmology	8,820.95
Urology	4,101.00
Surgery	88,868.83
<hr/>	
Other Income	13,859.63
Telephone	2,923.52
Recovery on Bad Debts	16,783.15
	<hr/> 2,637,830.04



Less Deductions		
Allowances—Group Hospitalization.....	23,152.09	
"    Hospital Service Agency.....	11,587.72	
"    Health Department.....	4,320.00	
"    Discounts.....	2,177.57	
"    Miscellaneous.....	2,449.94	
"    Free Work.....	9,073.91	
	<u>52,761.23</u>	2,585,068.81
Other Sources		
Cafeteria.....	94,581.52	
Special Duty Nurses.....	2,094.73	
Laundry.....	772.16	
Ambulance Service.....	173.00	
Endowment Income (Schedule 10).....	1,198.68	
Gifts (page 80).....	957.00	
Miscellaneous.....	<u>3,478.67</u>	
		<u>103,255.76</u>
		2,688,324.57
ACTIVITIES RELATING TO INSTRUCTION—POST-GRADUATE MEDICAL EDUCATION		
Deferred from 1948-49.....	45,681.22	
Tuition.....	<u>14,602.00</u>	
Deferred to 1950-51.....		<u>60,283.22</u>
		18,004.03



# CURRENT OPERATING INCOME (Continued) For the Year Ended August 31, 1950

## AUXILIARY ENTERPRISES

<b>RESIDENCE HALLS</b>		
Nurses Home—Everglades Apartments.....	15,463.23	
Staughton Hall.....	14,040.66	
Strong Hall.....	32,129.94	
Veterans Housing.....	34,106.55	
Welling Hall.....	22,562.10	
2025 H Street, NW.....	4,337.97	122,640.45
<b>SORORITY HALLS</b>		
2112 G Street, NW.....	1,350.00	
2129 G Street, NW.....	4,500.00	
2131 G Street, NW.....	660.00	
802 21st Street, NW.....	1,320.00	7,830.00
<b>OTHER</b>		
Student Union Cafeteria—Commissions.....	14,803.73	
Student Union—Other Income.....	7,151.35	
Book Store—New Books.....	21,529.70	
"    Used Books.....	7,179.92	
Student Store.....	50,583.98	
Duplicating Bureau.....	101,248.68	
Lisner Auditorium.....	4,084.17	
Martha Washington Club.....	15,353.04	
Washington Counseling Center.....	110.00	
	43,499.50	
	164,295.39	294,765.84
<b>TOTAL—EXHIBIT B.....</b>		<u>7,126,288.19</u>



## CURRENT OPERATING EXPENSE

For the Year Ended August 31, 1950

EDUCATIONAL AND GENERAL	TOTAL	SALARIES	OTHER EXPENSE	EQUIPMENT EXHIBIT G
ADMINISTRATION AND GENERAL				
President's Office.....	49,332.14	36,807.17	12,524.97	
Vice-President's Office.....	18,143.13	15,495.42	2,647.71	
Administrative Secretary's Office.....	56,639.54	31,477.91	25,161.63	
Comptroller's Office.....	108,607.35	95,783.71	12,823.64	
Business Manager's Office.....	121,837.79	43,809.60	53,654.00	24,374.19
Admissions Office.....	48,126.38	44,629.36	3,497.02	
Registrar's Office.....	57,032.14	45,603.06	11,429.08	
Activities for Men.....	19,562.06	15,868.77	3,693.29	
Activities for Women.....	10,734.91	9,980.47	754.44	
Adviser to Students from Foreign Countries.....	1,286.07	499.98	786.09	
Alumni Relations Office.....	33,885.11	16,724.58	17,160.53	
Public Relations Office.....	40,495.51	22,524.29	17,971.22	
Retirements.....	62,311.54	16,236.32	46,075.22	
University Chapels.....	1,963.52	930.00	1,033.52	
Veterans Administration.....	21,667.54	19,777.66	1,889.88	
Scientific Activities.....	2,471.70	1,002.73	47.17	1,421.80
TOTAL—EXHIBIT B.....	654,096.43	417,151.03	211,149.41	25,795.99







Economics.....	41,330.00	41,130.00	200.00
English.....	98,651.57	98,208.00	443.57
Extension.....	4,273.36	4,008.00	265.36
Federal Government Management Interns.....	1,000.00	1,000.00	
Foreign Affairs.....	2,340.00	2,340.00	
Foreign Service Review.....	7,115.33	6,242.50	872.83
Geography.....	13,737.42	12,800.00	537.79
Germanic Languages.....	20,965.05	20,910.00	55.05
Graduate Council.....	1,230.43	300.00	930.43
History.....	51,394.82	51,225.00	169.82
Journalism.....	7,494.82	7,390.00	49.49
Mathematics.....	37,300.84	37,280.00	20.84
Philosophy.....	7,630.23	7,600.00	30.23
Physics.....	48,293.68	46,372.50	973.17
Political Science.....	37,506.99	37,360.00	146.99
Public Administration.....	2,880.00	2,880.00	
Psychology.....	41,636.90	40,945.00	580.58
Religion.....	8,476.31	8,320.00	156.31
Romance Languages.....	70,307.39	70,090.00	217.39
Secretarial Studies.....	4,641.45	4,430.00	211.45
Sociology.....	15,997.66	15,941.25	56.41
Speech.....	42,897.72	38,298.00	1,458.00
Statistics.....	20,097.50	19,960.00	137.50
Zoology.....	28,665.69	24,215.62	3,950.62
	<u>835,215.73</u>	<u>787,458.05</u>	<u>37,915.82</u>
			<u>9,841.86</u>



**CURRENT OPERATING EXPENSE (Continued)**  
For the Year Ended August 31, 1950

	TOTAL	SALARIES	OTHER EXPENSE	EQUIPMENT EXHIBIT G
<b>EDUCATIONAL AND GENERAL (Continued)</b>				
<b>INSTRUCTION (Continued)</b>				
Law School				
Administration.....	10,750.95	8,683.17	2,067.78	
Instruction.....	144,936.39	143,018.57	1,917.82	
	<u>155,687.34</u>	<u>151,701.74</u>	<u>3,985.60</u>	
School of Education				
Administration.....	5,880.78	5,071.83	808.95	399.50
Instruction—Education.....	38,934.80	36,922.50	1,612.80	41.20
“ Home Economics.....	11,215.47	9,900.00	1,274.27	440.70
	<u>56,031.05</u>	<u>51,894.33</u>	<u>3,696.02</u>	
School of Engineering				
Administration.....	4,066.35	3,157.28	909.07	2,964.94
Instruction—Civil.....	37,105.41	33,498.84	641.63	5,873.30
“ Electrical.....	34,818.22	28,380.00	564.92	2,332.85
“ Mechanical.....	38,924.11	36,110.00	481.26	
“ Administration.....	8,300.00	8,300.00		
	<u>123,214.09</u>	<u>109,446.12</u>	<u>2,596.88</u>	<u>11,171.09</u>



School of Medicine

Administration.....	31,017.31	27,712.40	3,304.91	
Anatomy.....	21,383.71	19,946.40	1,022.81	414.50
Anesthesiology.....	100.00	100.00		
Bacteriology, Hygiene, and Preventive Medicine.....	27,037.63	23,867.88	1,167.52	2,002.23
Biochemistry.....	25,845.06	24,300.00	1,028.11	516.95
Dermatology and Syphilology.....	1,522.00	1,450.00	72.00	
Lecturers and Exchange Professors.....	995.00	995.00		
Medicine.....	30,171.01	29,231.16	939.85	
Neurology and Neurological Surgery.....	5,883.95	5,574.92	309.03	
Obstetrics and Gynecology.....	18,238.46	18,099.96	138.50	
Ophthalmology.....	1,925.79	1,846.72	79.07	
Oto-rhino-laryngology.....	1,775.00	1,775.00		
Pathology.....	23,851.30	22,659.84	798.47	392.99
Pediatrics.....	7,192.30	7,133.32	58.98	
Pharmacology.....	18,894.46	17,713.12	796.94	384.40
Physical Medicine.....	2,800.00	2,800.00		
Physiology.....	23,003.17	21,285.86	1,229.92	487.39
Psychiatry.....	2,782.85	2,700.00	82.85	
Research—General.....	23,988.96	6,639.85	17,349.11	
Surgery.....	24,039.36	23,814.99	224.37	
Urology.....	1,496.30	1,300.00	196.30	
	<u>293,943.62</u>	<u>260,946.42</u>	<u>28,798.74</u>	<u>4,198.46</u>



**CURRENT OPERATING EXPENSE (Continued)**  
For the Year Ended August 31, 1950

	<u>TOTAL</u>	<u>SALARIES</u>	<u>OTHER EXPENSE</u>	<u>EQUIPMENT EXHIBIT G</u>
<b>EDUCATIONAL AND GENERAL (Continued)</b>				
<b>INSTRUCTION (Continued)</b>				
School of Pharmacy				
Administration.....	2,030.11	1,680.00	350.11	789.53
Instruction.....	26,132.02	23,637.39	1,705.10	789.53
	<u>28,162.13</u>	<u>25,317.39</u>	<u>2,055.21</u>	
Summer Sessions				
Administration.....	6,514.25	2,234.16	4,280.09	1,202.24
Instruction.....	172,321.24	165,386.12	5,732.88	1,202.24
	<u>178,835.49</u>	<u>167,620.28</u>	<u>10,012.97</u>	
Physical Education				
Men.....	31,594.37	22,530.33	9,064.04	
Women.....	33,228.45	27,831.00	5,397.45	
	<u>64,822.82</u>	<u>50,361.33</u>	<u>14,461.49</u>	
<b>TOTAL INSTRUCTION.....</b>	<u>1,735,912.27</u>	<u>1,604,745.66</u>	<u>103,522.73</u>	<u>27,643.88</u>



ORGANIZED RESEARCH (Schedule 10)—EXHIBIT B.....

532,535.86                      328,564.96                      203,970.90

LIBRARIES

Books.....  
Other Expense.....  
TOTAL—EXHIBIT B.....

17,800.47                      .....  
64,337.24                      55,683.63                      8,464.31  
82,137.71                      55,683.63                      8,464.31  
17,800.47  
189.30  
17,989.77

MAINTENANCE AND OPERATION OF PLANT—EXHIBIT B...

383,877.17                      190,157.66                      193,719.51

MISCELLANEOUS EXPENSE

Alumni Dues.....  
Real Estate Conveyance.....  
Student Activities.....  
Health Administration.....  
Law Review.....  
Men's Athletics.....  
Student Activities Office.....  
Student Council Accounts.....  
University Accounts.....  
University Players.....

3,041.00                      .....  
2,161.85                      .....  
24,623.10                      18,576.36                      6,046.74  
8,105.26                      1,000.00                      7,105.26  
160,917.66                      38,393.32                      122,524.34  
10,105.24                      2,314.98                      7,790.26  
36,667.38                      677.50                      35,989.88  
7,338.15                      4,749.92                      2,588.23  
8,098.90                      1,432.50                      6,666.40  
261,058.54                      67,144.58                      193,913.96



**CURRENT OPERATING EXPENSE (Continued)**  
For the Year Ended August 31, 1950

	TOTAL	SALARIES	OTHER EXPENSE	EQUIPMENT EXHIBIT G
<b>EDUCATIONAL AND GENERAL (Continued)</b>				
<b>ACTIVITIES RELATING TO INSTRUCTION—HOSPITAL</b>				
Administration.....	262,801.11	112,387.39	150,413.72	
Dietary.....	400,387.19	186,050.16	214,337.03	
Household and Property				
Laundry.....	51,822.10	49,677.07	2,145.03	
Housekeeping.....	151,754.23	117,619.06	34,135.17	
Plant.....	126,623.98	46,206.35	80,417.63	
	330,200.31	213,502.48	116,697.83	
Professional Care—General				
Medical and Surgical Service.....	176,987.93	61,332.44	115,655.49	
Medical Library for Residents and Interns.....	3,000.00	2,400.00	600.00	
Nursing Care.....	593,665.19	591,994.37	1,670.82	
Medical Records.....	28,076.61	20,934.30	7,142.31	
Pharmacy.....	78,985.96	11,934.96	67,051.00	
Central Sterile Supply.....	11,306.00	10,957.64	348.36	
	892,021.69	699,553.71	192,467.98	
Professional Care—Special				
Operating Rooms.....	98,047.76	58,884.33	39,163.43	
Delivery Rooms.....	43,644.40	36,049.78	7,594.62	
Laboratories.....	105,842.77	95,996.83	9,845.94	
X-Ray.....	83,557.17	54,790.71	28,766.46	
Electroencephalography.....	4,840.71	4,186.23	654.48	
Anesthesiology.....	66,223.39	52,443.81	13,779.58	
Physical Medicine.....	31,685.28	30,890.60	794.68	
Urology.....	1,893.65	1,054.00	839.65	
Dentistry.....	909.81		909.81	
	436,644.94	334,296.29	102,348.65	



Out-Patient Department

General Services.....	17,619.97	17,411.44	208.53
Medicine.....	15,278.72	10,017.92	5,260.80
Surgery.....	10,396.02	6,387.52	4,008.50
Gynecology and Obstetrics.....	2,905.54	2,576.42	329.12
Ophthalmology.....	14,307.85	9,587.93	4,719.92
Ear, Nose, Throat.....	22.34	.....	22.34
Urology.....	2,584.39	1,440.00	1,144.39
Social Service.....	2,496.58	2,486.65	9.93
Nursing Care.....	6,467.26	6,467.26	.....
Housekeeping.....	13,801.89	13,801.89	.....
Emergency.....	8,639.84	8,639.84	.....
	<u>94,520.40</u>	<u>78,816.87</u>	<u>15,703.53</u>

Auxiliary Enterprises

Ambulance Service.....	70.00	.....	70.00
Residents' and Interns' Room Charges.....	(-12,100.00)	.....	(-12,100.00)
	<u>(-12,030.00)</u>	.....	<u>(-12,030.00)</u>

Depreciation (Exhibit G)

Building (Schedule 8).....	60,000.00	.....	60,000.00
Equipment (Schedule 9).....	108,000.00	.....	108,000.00
	<u>168,000.00</u>	.....	<u>168,000.00</u>
TOTAL HOSPITAL—EXHIBIT B.....	<u>2,572,545.64</u>	<u>1,624,606.90</u>	<u>947,938.74</u>

ACTIVITIES RELATING TO INSTRUCTION—POST-GRADUATE  
MEDICAL EDUCATION.....

	<u>18,004.03</u>	<u>8,549.00</u>	<u>9,455.03</u>
--	------------------	-----------------	-----------------



**CURRENT OPERATING EXPENSE (Continued)**  
For the Year Ended August 31, 1950

	TOTAL	SALARIES	OTHER EXPENSE	EQUIPMENT EXHIBIT G
<b>AUXILIARY ENTERPRISES</b>				
<b>RESIDENCE HALLS</b>				
Nurses Home—Everglades Apartments.....	11,221.69	7,957.16	3,264.53	
Staughton Hall.....	39,279.22	13,468.82	25,810.40	
Strong Hall.....	23,083.83	10,956.43	12,127.40	
Veterans Housing.....	9,480.36	1,790.10	7,690.26	
Welling Hall.....	2,976.83	948.63	2,028.20	
2025 H Street, NW.....	86,041.93	35,121.14	50,920.79	
<b>SORORITY HALLS</b>				
2112 G Street, NW.....	856.31	120.00	736.31	
2129 G Street, NW.....	2,602.51	650.00	1,952.51	
2131 G Street, NW.....	152.35	100.00	52.35	
802 21st Street, NW.....	2,003.65	350.00	1,653.65	
	5,614.82	1,220.00	4,394.82	
<b>OTHER</b>				
Book Store, Student Store, Student Union.....	94,270.71	22,490.45	71,780.26	
Duplicating Bureau.....	1,841.80	.....	1,841.80	
Lisner Auditorium.....	19,143.21	11,084.52	8,058.69	385.23
Washington Counseling Center.....	28,774.52	26,991.33	1,397.96	385.23
	144,030.24	60,566.30	83,078.71	
<b>TOTAL—EXHIBIT B.....</b>	<b>235,686.99</b>	<b>96,907.44</b>	<b>138,394.32</b>	<b>385.23</b>



# NON EDUCATIONAL

SCHOLARSHIPS.....	23,705.83	.....	23,705.83
INTEREST ON NOTES PAYABLE.....	20,010.43	.....	20,010.43
MARKERS FOR HOSPITAL.....	2,974.75	.....	2,974.75
TOTAL—EXHIBIT B.....	46,691.01	.....	46,691.01
TOTAL EXPENSE—EXHIBIT B.....	6,522,545.65	4,393,510.86	2,057,219.92
			71,814.87

Less overhead expense charged to various departments  
and included in "Other Expense" above.....

91,299.80

TOTAL EXPENSE, ADJUSTED—EXHIBIT B.....

6,431,245.85



# MISCELLANEOUS ASSETS AND LIABILITIES

August 31, 1950

EXHIBIT A

ACCOUNTS RECEIVABLE		
Veterans Administration—Veterans Tuition, Books, Supplies	264,740.14	
" Washington Counseling Center	1,413.75	
Regular Students—Tuition and Other Fees	9,725.00	
Dormitory Rents	717.30	
Hospital	283,695.26	
Less Provision for Doubtful Accounts	35,000.00	
United States Government—Organized Research		
Vendors' Debit Balances	86,127.31	
National Committee on Accrediting	1,810.55	
	1,061.17	
		614,290.48
PREPAID EXPENSE		
University Supplies—Stockroom	41,537.00	
" Student Store	16,556.00	
" Book Store	12,292.00	
" Duplicating Bureau	156.00	
" Microscopes	916.26	
" Miscellaneous	4,558.18	
Hospital—Supplies—Medical and Surgical	67,981.00	
" Pharmacy	15,447.00	
" Ophthalmology	8,568.00	
" Maintenance and Housekeeping	5,120.00	
" Linens and Bedding	6,420.00	
" Office	3,693.00	
" Food	7,568.00	
" Insurance	6,808.87	
	121,605.87	
		197,621.31
DEFERRED INCOME		
Post-Graduate Medical Education	42,279.19	
Student Fees	14,723.00	
Auditorium	1,100.00	
Student Council	1,382.38	
		59,484.57



# ASSETS OF LOAN FUNDS

August 31, 1950

FUNDS	TOTAL	CASH	LOANS RECEIVABLE
D.C.—D.A.R. Loan Fund.....	3,071.92	2,825.52	246.40
George Washington Law Association Loan Fund.....	786.10	242.10	544.00
Harris Loan Fund.....	400.00	400.00	
Home Economics Loan Fund.....	382.35	382.35	
Kellogg Medical School Loan Fund.....	16,531.79	10,530.55	6,001.24
Sutherland Medical School Loan Fund.....	1,200.00	700.00	500.00
University Loan Fund.....	8,165.72	6,706.62	1,459.10
War Loan Fund.....	6,751.12	.....	6,751.12
TOTAL—EXHIBIT A.....	37,289.00	21,787.14	15,501.86

SCHEDULE 4



# ASSETS OF ENDOWMENT FUNDS—CONTROLLED BY THE UNIVERSITY

August 31, 1950

## CONSOLIDATED ENDOWMENT FUNDS

	BONDS	DESCRIPTION	%	DUE	VALUE	
					PAR	MARKET
American Telephone and Telegraph Co.	Convertible Debenture	2 3/4	1961	12,000	13,080.00	13,014.00
Atchison, Topeka and Santa Fe Ry. Co.	General Mortgage	4	1995	2,000	2,580.00	1,970.00
Baltimore and Ohio R. R. Co., Pittsburgh, Lake Erie and W. Va. System	Refunding Mortgage, Series A	4	1980	5,000	4,500.00	5,038.00
Capital Transit Co.	First and Refunding Mortgage A	4	1964	8,000	7,920.00	8,000.00
Great Northern Railway Co.	General Mortgage, Series D	4 1/2	1976	25,000	30,500.00	25,193.00
Liggett and Meyers Tobacco Co.	Debenture	5	1951	12,000	12,360.00	12,122.00
New York Central Railroad Co.	Refunding and Improvement A	4 1/2	2013	30,000	20,700.00	24,750.00
Pennsylvania Railroad Co.	General Mortgage, Series E	4 1/2	1984	25,000	24,750.00	26,555.00
Pennsylvania Railroad Co.	Consolidated Mortgage	4 1/2	1960	1,000	1,140.00	1,020.00
Southern Railway Co.	Development and General Mtge. A	6 1/2	1956	2,000	2,160.00	2,150.00
State Loan and Finance Corporation	Sinking Fund Subordinated Deb.	5	1960	10,000	9,900.00	10,000.00
United States of America	Treasury Bonds	2 1/4	1959-62	50,000	50,500.00	50,000.00
United States of America	Treasury Bonds	2 1/2	1967-72	10,000	10,100.00	10,000.00
United States of America	Savings Bonds, Series G	2 1/2	10-1-54	23,000	22,172.00	23,000.00
United States of America	Savings Bonds, Series G	2 1/2	11-1-54	47,000	45,308.00	47,000.00
United States of America	Savings Bonds, Series G	2 1/2	1-1-55	17,000	16,388.00	17,000.00
United States of America	Savings Bonds, Series G	2 1/2	4-1-55	36,500	35,076.00	36,500.00
United States of America	Savings Bonds, Series G	2 1/2	9-1-55	41,100	39,374.00	40,880.00
United States of America	Savings Bonds, Series G	2 1/2	10-1-55	7,500	7,185.00	7,456.00
United States of America	Savings Bonds, Series G	2 1/2	2-1-56	9,000	8,622.00	9,000.00
United States of America	Savings Bonds, Series G	2 1/2	2-1-58	10,000	9,470.00	10,000.00
United States of America	Savings Bonds, Series G	2 1/2	7-1-58	35,000	33,145.00	35,000.00
United States of America	Savings Bonds, Series F	2 5/8	8-1-56	200	164.00	148.00
United States of America	Savings Bonds, Series F	2 5/8	11-1-58	200	153.00	148.00
United States of America	General Mortgage	5	1960	6,000	7,260.00	6,389.00
Washington Gas Light Co.	Guaranteed First Mortgage Reg.	4	2361	26,000	15,860.00	22,620.00
West Shore Railroad Co.					430,367.00	444,953.00



STOCKS—PREFERRED	%	SHARES			
Allis-Chalmers Manufacturing Co.....	3¼	100	Cumulative Convertible.....	8,900.00	10,000.00
American Smelting and Refining Co.....	7	120	Cumulative.....	20,040.00	17,496.70
American Viscose Corporation.....	5	100	Cumulative.....	11,900.00	10,750.00
Appalachian Electric Power Co.....	4½	100	Cumulative.....	11,100.00	10,600.00
Atchison, Topeka and Santa Fe Ry. Co.....	5	60	Non Cumulative.....	6,480.00	5,987.50
Cleveland and Pittsburgh R. R. Co.....	7	100	Guaranteed.....	7,000.00	8,500.00
Connecticut Light and Power Co.....	...	400	\$2.20 Cumulative.....	22,000.00	21,008.32
Corning Glass Works.....	3½	240	Cumulative.....	24,240.00	24,000.00
Detroit, Hillsdale and S. W. R. R. Co.....	4	163	Guaranteed.....	9,454.00	10,432.00
General American Transportation Corp..	...	200	\$4.25 Cumulative, Series A.....	20,600.00	19,600.00
General Motors Corporation.....	...	200	\$3.75 Cumulative.....	21,000.00	20,000.00
General Motors Corporation.....	...	100	\$5 Cumulative.....	12,400.00	12,525.25
General Shoe Corporation.....	...	50	\$3.50 Cumulative.....	4,500.00	5,180.00
Gold and Stock Telegraph Co.....	6	100	Guaranteed.....	11,100.00	11,700.00
Hecht Co.....	3¾	50	Cumulative.....	4,750.00	5,150.00
H. J. Heinz Co.....	3.65	200	Cumulative.....	21,000.00	20,550.00
International Harvester Co.....	7	100	Cumulative.....	17,800.00	18,204.43
May Department Stores.....	...	200	\$3.75 Cumulative.....	19,800.00	20,700.00
McCrary Stores Corporation.....	3½	200	Cumulative Convertible.....	20,400.00	20,670.70
McKesson and Robbins, Inc.....	...	100	\$4 Cumulative.....	10,100.00	9,835.34
Merk and Co., Inc.....	...	105	\$3.50 Cumulative.....	10,290.00	10,497.50
Oliver Corporation.....	4½	200	Cumulative Convertible.....	18,800.00	21,520.34
Pacific Gas and Electric Co.....	4.8	1,000	Redeemable First.....	28,000.00	27,250.00
Panhandle Eastern Pipe Line Co.....	4	200	Cumulative.....	20,600.00	20,172.40
Pennsylvania Electric Co.....	3.7	200	Cumulative, Series C.....	18,800.00	20,500.00
Philadelphia Electric Co.....	3.8	100	Cumulative.....	10,400.00	10,270.00
Potomac Electric Power Co.....	3.6	304	Cumulative, Series A, Par Value \$50.....	14,288.00	15,732.00
Public Service Electric and Gas Co.....	...	550	\$1.40 Dividend Preference.....	14,300.00	15,406.87
Rayonier, Inc.....	...	400	\$2 Cumulative, Par Value \$25.....	13,200.00	13,584.11
R. J. Reynolds Tobacco Co.....	3.6	100	Cumulative.....	9,700.00	10,017.84
Rogers, George A., and Co.....	...	1	\$6 Cumulative First.....	100.00	100.00
Southern California Edison Co.....	4.56	800	Cum. Conv. Preference, Par Value \$25.....	24,000.00	21,000.00
Sterling Drug, Inc.....	3½	200	Cumulative.....	20,200.00	20,500.00
Virginia Electric and Power Co.....	...	300	\$4.04 Cumulative.....	31,800.00	30,681.00
				519,042.00	520,122.30



ASSETS OF ENDOWMENT FUNDS—CONTROLLED BY THE UNIVERSITY (Continued)

August 31, 1950

CONSOLIDATED ENDOWMENT FUNDS (Continued)

	SHARES	MARKET	BOOK
STOCKS—COMMON			
Allis-Chalmers Manufacturing Co.....	500	16,500.00	21,347.00
American Gas and Electric Co.....	334	15,030.00	13,613.50
Atlantic City Electric Co.....	54	972.00	934.50
Bank of America, National Trust and Savings Association.....	117	3,042.00	2,604.71
Capital Transit Co.....	27	972.00	2,835.00
Chrysler Corporation.....	200	13,600.00	11,500.25
Commonwealth Edison Co.....	640	17,920.00	18,190.00
Continental Can Co., Inc.....	31	1,023.00	2,375.38
Continental Illinois National Bank and Trust Co.....	270	24,030.00	16,945.31
Continental Oil Co.....	210	15,540.00	9,454.95
General Electric Co.....	100	4,700.00	5,405.00
General Motors Corporation.....	500	45,000.00	26,523.75
Goodyear Tire and Rubber Co.....	200	11,600.00	9,411.57
International Nickel Co. of Canada, Ltd.....	200	6,600.00	12,035.25
Kennecott Copper Corporation.....	300	18,900.00	18,227.50
Mergenthaler Linotype Co.....	6	336.00	588.00
National City Bank of New York.....	39	1,716.00	3,517.04
New York Air Brake Co.....	200	7,000.00	8,646.84
Phelps Dodge Corporation.....	200	11,200.00	7,857.25
R. J. Reynolds Tobacco Co.—New Class B.....	100	3,400.00	5,112.50
Riggs National Bank.....	13	4,745.00	4,875.00
Security Storage Co.....	67	7,973.00	5,058.50
Socony Vacuum Oil Co.....	1,530	35,190.00	23,687.16
Southern Pacific Co.....	50	2,950.00	1,520.53
Standard Oil Co. of California.....	330¾	23,153.00	11,796.85
Travelers Insurance Co.....	40	17,200.00	16,045.68
United Gas Corporation.....	800	14,400.00	14,150.79
		324,692.00	274,259.81

VALUE



TRUST NOTES RECEIVABLE

Bronaugh, Alfred T. and Catherine—Secured by lot 21, square 2836.....					
Edmund Property, Inc.—Secured by lot 4, square 15.....	4 1/2			500.00	500.00
Grady, Dallas E.—Secured by lot 6, square 3953.....	4			6,500.00	6,500.00
Henderson, James M.—Secured by lots 33-34, square 3187.....	4			6,000.00	6,000.00
Snow, Chester A.—Secured by lot 77, square 162.....	4			1,000.00	1,000.00
Swartzell, John M.—Secured by lot 82, square 33.....	4			8,000.00	8,000.00
Wollberg, Ben—Secured by lot 9, square 16.....	4			2,000.00	2,000.00
	4			3,500.00	3,500.00
				<u>27,500.00</u>	<u>27,500.00</u>

REAL ESTATE

Strong Hall—620 21st Street, NW. Lots 19-20-818-819, square 80.....		223,584.46	223,584.46
CASH.....		<u>31,176.16</u>	<u>31,176.16</u>
		<u>1,556,361.62</u>	

TOTAL.....1,521,595.73



# ASSETS OF ENDOWMENT FUNDS—CONTROLLED BY THE UNIVERSITY (Continued)

August 31, 1950

## SCOTTISH RITE FUND

VALUE

BONDS	DESCRIPTION	%	DUE	PAR	MARKET	BOOK
	American Telephone and Telegraph Co. . . . .	2 3/4	1980	25,000	25,000.00	25,000.00
	Capital Transit Co. . . . .	4	1964	10,000	9,900.00	10,000.00
	Cleveland Union Terminals Co. . . . .	4 1/2	1977	24,000	25,440.00	23,460.00
	First Mortgage Sinking Fund C. . . . .	5	1965	12,000	14,520.00	12,844.00
	Lexington and Eastern Railway Co. . . . .	5	1951	3,000	3,090.00	3,031.00
	Liggett and Myers Tobacco Co. . . . .	4	1997	25,000	27,500.00	26,856.00
	Northern Pacific Railway Co. . . . .	3 1/2	1951	3,000	3,000.00	3,000.00
	Protestant Episcopal Cathedral Foundation of D. C. . . . .	5	1960	5,000	4,950.00	5,000.00
	State Loan and Finance Corporation. . . . .	2	1950-52	103,000	103,000.00	103,000.00
	United States of America. . . . .	2	1951-53	20,000	20,200.00	20,000.00
	United States of America. . . . .	2 1/4	1959-62	25,000	25,250.00	25,000.00
	United States of America. . . . .	2 1/2	1967-72	25,000	25,250.00	25,000.00
	United States of America. . . . .	2 1/2	10-1-53	50,000	48,500.00	50,000.00
	United States of America. . . . .	2 1/2	10-1-54	100,000	96,400.00	100,000.00
	United States of America. . . . .	2 1/2	1-1-55	100,000	96,400.00	100,000.00
	United States of America. . . . .	2 1/2	2-1-56	1,000	958.00	1,000.00
	United States of America. . . . .	5	1960	4,000	4,840.00	4,471.00
	Washington Gas Light Co. . . . .	4	2361	14,000	8,540.00	12,355.00
	West Shore Railroad Co. . . . .				542,738.00	550,017.00
	Guaranteed First Mortgage Reg. . . . .					

STOCKS—PREFERRED	%	SHARES	MARKET	BOOK
American Viscose Corporation. . . . .	5	100	11,900.00	10,750.00
Consolidated Gas Electric Light and Power Co. of Baltimore. . . . .	4	130	13,780.00	13,312.73
Dresser Industries, Inc. . . . .	3 3/4	200	17,000.00	20,600.00
Federated Department Stores, Inc. . . . .	4 1/4	100	10,500.00	9,895.00
General Motors Corporation. . . . .		40	4,200.00	4,000.00
Cumulative. . . . .				
Cumulative, Series C. . . . .				
Cumulative Convertible. . . . .				
\$3.75 Cumulative. . . . .				



General Shoe Corporation.....	\$3.50 Cumulative.....	50	4,500.00	5,120.50
Goodyear Tire and Rubber Co.....	\$5 Cumulative Convertible.....	100	10,500.00	10,960.34
Hecht Co.....	Cumulative.....	150	14,250.00	15,450.00
International Harvester Co.....	Cumulative.....	50	8,900.00	9,124.08
Le Tournear, R. G., and Co.....	\$4 Cumulative.....	200	11,400.00	20,900.00
McKesson and Robbins, Inc.....	\$7 Cumulative, Class A.....	100	10,100.00	9,860.25
Montgomery Ward and Co.....	Cumulative.....	100	18,500.00	20,535.65
Pacific Telephone and Telegraph Co.....	Cumulative.....	200	30,000.00	32,485.99
Philadelphia Electric Co.....	Cumulative.....	100	10,400.00	10,270.00
Philip Morris and Co., Ltd., Inc.....	Cumulative.....	138	14,490.00	14,007.00
Potomac Electric Power Co.....	Cumulative, Series A, Par Value \$50.....	300	14,100.00	15,525.00
R. J. Reynolds Tobacco Co.....	Cumulative.....	200	19,400.00	20,018.77
			<u>223,920.00</u>	<u>242,815.31</u>

STOCKS—COMMON

Cincinnati Milling Machine Co.....	500	15,500.00	18,609.10
Commonwealth Edison Co.....	800	22,400.00	21,995.00
Continental Oil Co.....	500	37,000.00	15,725.25
General Electric Co.....	400	18,800.00	17,210.00
Goodyear Tire and Rubber Co.....	200	11,600.00	9,649.34
International Nickel Co. of Canada, Ltd.....	300	9,900.00	13,032.50
Montgomery Ward and Co.....	750	40,500.00	32,577.25
Riggs National Bank.....	125	45,625.00	32,625.00
Standard Oil of California.....	110 1/4	7,717.00	2,600.00
Standard Oil of New Jersey.....	536	43,416.00	37,854.29
Underwood Corporation.....	300	12,900.00	20,940.19
Union Carbide and Carbon Corporation.....	900	40,500.00	25,122.50
United Gas Corporation.....	700	12,600.00	12,381.66
		<u>318,458.00</u>	<u>260,322.08</u>
CASH.....		6,754.99	6,754.99
		<u>1,091,870.99</u>	

TOTALS } SCOTTISH RITE FUND.....	1,000,000.00
} RESERVE FOR PROTECTION OF SCOTTISH RITE FUND INVESTMENTS.....	59,909.38
	<u>1,059,909.38</u>



ASSETS OF ENDOWMENT FUNDS—CONTROLLED BY THE UNIVERSITY (Continued)  
August 31, 1950  
SUMMARY OF ASSETS OF ENDOWMENT FUNDS—CONTROLLED BY THE UNIVERSITY

Funds	Total Assets	Cash	INVESTMENTS					Trust Notes	Real Estate
			Total	Bonds	Stocks		Common		
					Preferred				
Consolidated.....	1,521,595.73	31,176.16	1,490,419.57	444,953.00	520,122.30	274,259.81	27,500.00	223,584.46	
Scottish Rite.....	1,059,909.38	6,754.99	1,053,154.39	550,017.00	242,815.31	260,322.08			
TOTALS—Exhibit A.	2,581,505.11	37,931.15	2,543,573.96	994,970.00	762,937.61	534,581.89	27,500.00	223,584.46	



# ENDOWMENT FUNDS—CONTROLLED BY OTHER TRUSTEES

August 31, 1950

FUNDS	TRUSTEES	BOOK VALUE
Andrews Scholarship Fund.....	American Security and Trust Co.....	5,139.98
Fry Professorship Fund.....	National Savings and Trust Co.....	102,992.49
Harvey Scholarship Fund.....	Washington Loan and Trust Co.....	5,031.97
Sanders Fellowship Fund.....	National Savings and Trust Co.....	206,602.87
Sharpe Medical School Fund.....	National Savings and Trust Co.....	8,334.13
Spencer Scholarship Fund.....	Northern Trust Co., Chicago.....	7,434.20
TOTAL—EXHIBIT A.....		<u>335,535.64</u>



# ASSETS OF PLANT FUNDS

August 31, 1950

## PAIRO FUND

	VALUE			
	%	DUE	PAR	MARKET
BONDS				
				BOOK
Morris and Essex Railroad Co.....	3 1/2	2000	6,000	3,660.00
Southern Pacific Co. (Oregon Lines).....	4 1/2	1977	5,000	5,159.00
United States of America.....	1 1/4	8-1-51	50,000	49,975.80
United States of America.....	2 1/2	1964-69	500	502.00
United States of America.....	2 1/2	9-1-53	700	700.00
United States of America.....	2 1/2	2-1-54	500	500.00
United States of America.....	2 1/2	11-1-56	300	300.00
United States of America.....				61,741.80
				60,720.00
STOCKS—COMMON				
		SHARES		
American Security and Trust Co.....		200		8,220.00
Capital Transit Co.....		200		14,400.00
Mergenthaler Linotype Co.....		150		15,806.25
National City Bank of New York.....		61		2,928.00
Pennroad Corporation.....		100		1,300.00
Riggs National Bank.....		52		18,980.00
				44,964.00
				62,349.25
CASH.....				6,535.58
				6,535.58
TOTALS.....				112,219.58
				130,626.63



CONSOLIDATED PLANT FUNDS

Bonds	%	Due	Par	
State Loan and Finance Corporation Sinking Fund Subordinated Debenture ..	5	1960	10,000	10,000.00
United States of America .....	11 1/4	8-1-51	50,000	49,975.79
United States of America .....	2 1/4	11-1-54	3,000	3,000.00
United States of America .....	2 1/4	10-1-55	1,000	1,000.00
United States of America .....	2 1/4	10-1-57	1,700	1,700.00
United States of America .....	2 1/4	4-1-61	18,600	18,600.00
				<u>84,275.79</u>
STOCK—PREFERRED				
Garfinckel and Co. ....		%	SHARES	
		4 1/2	750	13,037.50
STOCKS—COMMON				
Garfinckel and Co. ....			2,370	42,660.00
Glidden Co. ....			102	2,575.00
				<u>47,435.00</u>
CASH .....				17,766.72
TOTALS .....				<u>160,129.72</u>
				<u>162,515.01</u>

SUMMARY OF ASSETS OF PLANT FUNDS

FUNDS	Total Assets	Cash	INVESTMENTS			
			Total	Bonds	Preferred Stocks	Common Stocks
Consolidated Plant Funds .....	162,515.01	17,766.72	144,748.29	84,275.79	13,037.50	47,435.00
Pairo Fund .....	130,626.63	6,535.58	124,091.05	61,741.80	.....	62,349.25
TOTALS—EXHIBIT A .....	293,141.64	24,302.30	268,839.34	146,017.59	13,037.50	109,784.25



# LAND AND BUILDINGS

For the Year Ended August 31, 1950

Building or Location	Lot	Square	Year Acquired or Erected	Balance August 31, 1949	Net Additions	Balance August 31, 1950
Biological Sciences Building C.....	Part of 834	102	1914-35	151,129.97	.....	151,129.97
Corcoran Hall.....	Part of 834	102	1919-24	327,481.92	.....	327,481.92
	{ 5-13-15-17-19					
	{ 24-28-29					
Field House Site.....	800-801-802					
	805 thru 821					
	823-828-829-830					
	832-833-834-836					
	838-839-842	56	1936-48	260,133.03	.....	260,133.03
Gymnasium.....	Part of 834	102	1924-25	58,331.44	.....	58,331.44
Hall of Government.....	Part of 841	79	1918-38	239,035.63	.....	239,035.63
Hospital.....	Entire square	54	1945	7,389,564.00	.....	7,389,564.00
Lisner Auditorium.....	838-843	79	1929-41	823,982.91	.....	823,982.91
Lisner Hall.....	Part of 834	102	1912-39	372,230.19	.....	372,230.19
Mechanical Laboratory.....	Part of 834	102	1923-30	57,583.87	.....	57,583.87
Nurses Home (Schedule 8—Page 4).....	806 thru 811	55	1947	401,500.00	.....	401,500.00
	{ 17 thru 39					
Parking Lot.....	800 thru 817					
	822 thru 826	41	1945-50	338,505.50	179,295.00	517,800.50
Pharmacology Laboratory.....	27-28-816-817	79	1944	95,482.17	.....	95,482.17
Physics Laboratory.....	Part of 843	79	1947	26,075.12	.....	26,075.12
President's Office.....	Part of 834	102	1936	11,700.00	.....	11,700.00
School of Medicine, Cancer Clinic (Schedule 8—Page 4).....	43	250	1882-1932	995,706.34	.....	995,706.34
Shop, Stockroom.....	53	101	1943	26,761.24	.....	26,761.24
Social Sciences Building D.....	Part of lot 834	102	1922-36	269,279.60	.....	269,279.60
Sorority Hall—2129 G Street, NW.....	805	79	1936	36,989.72	.....	36,989.72



Sorority Hall—2131 G Street, NW	Part of 8	79	1935	25,500.00	.....	25,500.00
Sorority Hall—802 21st Street, NW	35	77	1938	13,000.00	.....	13,000.00
Staughton Hall	834-835	79	1941	51,600.00	.....	51,600.00
Stockton Hall	Part of 834	102	1920-25	279,325.93	.....	279,325.93
Student Activities Building	41	79	1947	75,000.00	.....	75,000.00
Student Store	Part of 843	79	1949	48,105.49	.....	48,105.49
Student Union Building	836	79	1947-48	65,323.97	.....	65,323.97
Veterans Housing	.....	.....	.....	451,129.16	.....	451,129.16
Parts of Squares 56, 77, 79	15	55	1948	150,000.00	.....	150,000.00
Welling Hall	.....	.....	1947	209,047.72	.....	209,047.72
G Street, NW—1910	C	121	1949	20,000.00	.....	20,000.00
"	27	103	1949	33,600.00	.....	33,600.00
"	16	103	1922	14,955.00	.....	14,955.00
"	15	103	1929	15,074.96	.....	15,074.96
"	Part of 834	102	1922	32,500.00	.....	32,500.00
"	817	80	1937	19,000.00	.....	19,000.00
"	41	80	1946	31,500.00	.....	31,500.00
"	Part of 844	79	1938	55,646.21	.....	55,646.21
"	40	80	1949	50,000.00	.....	50,000.00
"	Part of 844	79	1938	60,000.00	.....	60,000.00
"	816	80	1948	30,000.00	.....	30,000.00
"	815	80	1949	47,250.00	.....	47,250.00
"	A	80	1946	20,500.00	.....	20,500.00
"	B	80	1946	17,500.00	.....	17,500.00
"	804	79	1939	10,146.50	.....	10,146.50
"	807	79	1943	14,000.00	.....	14,000.00
"	40	79	1949	1,000.00	.....	1,000.00
"	25	57	1948	8,800.00	.....	8,800.00
"	803-829	42	1947	23,400.00	.....	23,400.00



**LAND AND BUILDINGS—(Continued)**  
For the Year Ended August 31, 1950

Building or Location	Lot	Square	Year Acquired or Erected	Balance August 31, 1949	Net Additions	Balance August 31, 1950
H Street, NW—1909.....	800	119	1948	32,500.00	.....	32,500.00
" " 1911-13.....	3	119	1948	67,711.70	1,711.70	67,711.70
" " 1923.....	803	119	1949	38,000.00	38,000.00	38,000.00
" " 2011.....	806	101	1943	.....	.....	13,000.00
" " 2014-16-18-18½ 2020-22-24-26.....	Part of 834	102	1922	98,516.71	.....	98,516.71
" " 2025.....	52	101	1945	21,000.00	.....	21,000.00
" " 2027.....	813	101	1941	11,000.00	.....	11,000.00
" " 2029.....	814	101	1945	11,500.00	.....	11,500.00
" " 2031.....	815	101	1948	13,000.00	.....	13,000.00
" " 2037.....	817	101	1940	23,500.00	.....	23,500.00
" " 2111.....	802	77	1950	.....	1,500.00	1,500.00
" " 2113.....	804	77	1940	12,500.00	.....	12,500.00
" " 2115.....	805	77	1944	12,431.25	.....	12,431.25
" " 2127.....	809	77	1946	7,500.00	.....	7,500.00
" " 2137-39.....	811	77	1948	15,500.00	.....	15,500.00
" " 2142.....	D	79	1935	1,500.00	.....	1,500.00
" " 2142½.....	815	79	1940	3,000.00	.....	3,000.00
" " 2209.....	804	55	1945	6,650.00	.....	6,650.00
" " 2211.....	16	55	1948	16,125.00	.....	16,125.00
" " 2213.....	17	55	1946	13,000.00	.....	13,000.00
" " 2215-19.....	18-805	55	1944	15,500.00	.....	15,500.00
" " 2300.....	817	42	1942	10,750.00	.....	10,750.00
" " 2308.....	43	42	1948	7,900.00	.....	7,900.00
" " 2312.....	814	42	1948	7,000.00	.....	7,000.00
" " 2316.....	812	42	1947	9,600.00	.....	9,600.00



I Street, NW—2012									
"	2014	830	101	1945	25,000.00	.....	.....	25,000.00	.....
"	2018	829	101	1945	25,000.00	.....	.....	25,000.00	.....
"	2038	21	101	1946	50,000.00	.....	.....	50,000.00	.....
"	2106	840	101	1942	10,000.00	.....	.....	10,000.00	.....
"	2112	27	77	1947	11,800.00	.....	.....	11,800.00	.....
"	2136	55-56	77	1947	12,500.00	.....	.....	12,500.00	.....
"	2138	826	77	1948	15,000.00	.....	.....	15,000.00	.....
"	2204	825	77	1945	5,000.00	.....	.....	5,000.00	.....
		22	55	1949	12,000.00	.....	.....	12,000.00	.....
K Street, NW—2300									
		Entire square	39	1948	278,735.00	.....	.....	278,735.00	.....
New Hampshire Avenue, NW—905									
		813	40	1949	.....	.....	9,500.00	9,500.00	.....
Pennsylvania Avenue, NW—									
"	1900-02-04-06-08	12-19	119	1949	.....	.....	180,000.00	180,000.00	.....
"	1914-16	812	119	1950	.....	.....	70,000.00	70,000.00	.....
"	1920	813	119	1949	70,000.00	.....	.....	70,000.00	.....
"	1924-26 (Refund)	808-809	119	1949	5,000.00	.....	(-5,000.00)	.....	.....
"	2100	800-801-840	75	1945	103,000.00	.....	.....	103,000.00	.....







22nd Street, NW—715	24	79	1939	8,190.00	.....	8,190.00	.....	8,190.00
"	717	79	1940	10,143.00	.....	10,143.00	.....	10,143.00
"	725	79	1938	8,750.00	.....	8,750.00	.....	8,750.00
"	727	79	1937	4,750.00	.....	4,750.00	.....	4,750.00
"	731	79	1945	7,600.00	.....	7,600.00	.....	7,600.00
"	802-803	55	1946	18,500.00	.....	18,500.00	.....	18,500.00
"	806	55	1945	9,000.00	.....	9,000.00	.....	9,000.00
"	808	55	1946	14,000.00	.....	14,000.00	.....	14,000.00
"	810	55	1948	18,750.00	.....	18,750.00	.....	18,750.00
"	813	77	1948	10,800.00	.....	10,800.00	.....	10,800.00
"	815-17	77	1948	17,000.00	.....	17,000.00	.....	17,000.00
"	820	55	1945	7,000.00	.....	7,000.00	.....	7,000.00
"	822	55	1947	9,250.00	.....	9,250.00	.....	9,250.00
"	837 (Refund)	77	1949	11,500.00	.....	11,500.00	(-500.00)	.....
"	909	75	1946	12,000.00	.....	12,000.00	.....	12,000.00
"	911	75	1950	12,500.00	.....	12,500.00	.....	12,500.00
"	921	75	1948	.....	.....	.....	.....	.....
23rd Street, NW—611-613	29-821	57	1948	13,500.00	.....	13,500.00	.....	13,500.00
"	822-824-825	42	1942	3,675.00	.....	3,675.00	.....	3,675.00
"	706	42	1944	7,425.00	.....	7,425.00	.....	7,425.00
"	716	42	1949	11,000.00	.....	11,000.00	.....	11,000.00
"	718	42	1942	4,500.00	.....	4,500.00	.....	4,500.00
"	734	42	1942	3,000.00	.....	3,000.00	.....	3,000.00
"	736	42	1942	500.00	.....	500.00	.....	500.00
"	908	40	1949	17,250.00	.....	17,250.00	.....	17,250.00
24th Street, NW—737-739	808	42	1947	11,440.00	.....	11,440.00	.....	11,440.00
Less Depreciation—Hospital				15,022,026.09	836,936.16	15,858,962.25		
TOTAL—EXHIBIT A						120,000.00		15,738,962.25



TRUST NOTES PAYABLE

August 31, 1950

EQUITABLE LIFE ASSURANCE SOCIETY Secured by Nurses Home. Due \$7,875 each May 1 and November 1 including interest at 4%.....	199,909.29
WASHINGTON LOAN AND TRUST Co. Secured by School of Medicine and Cancer Clinic. Due February 21, 1955. Interest 4%.....	<u>100,000.00</u>
TOTAL—EXHIBIT A.....	<u>299,909.29</u>



## EQUIPMENT

For the Year Ended August 31, 1950

	BALANCE AUGUST 31, 1949	NET ADDITIONS	BALANCE AUGUST 31, 1950
Administration.....	151,884.72	24,759.42	176,644.14
Duplicating Bureau.....	1,774.50	.....	1,774.50
George Washington University Cancer Clinic.....	3,205.00	.....	3,205.00
Gilbert Stuart Painting.....	.....	17,645.61	17,645.61
Gymnasium.....	2,927.37	.....	2,927.37
Hospital.....	1,120,663.30	46,611.25	1,167,274.55
Instruction—General.....	134,535.32	12,906.60	147,441.92
Law School.....	1,739.63	.....	1,739.63
Library Books—Carnegie Library.....	.....	75,000.00	75,000.00
“ “ General.....	109,462.24	10,575.22	120,037.46
“ “ Law School.....	75,423.70	5,300.07	80,723.77
“ “ School of Medicine.....	19,828.08	2,428.86	22,256.94
Lisner Auditorium.....	91,247.78	3,596.50	94,844.28
Lisner Hall.....	27,111.52	189.30	27,300.82
Nurses Home.....	7,859.41	1,851.19	9,710.60
Residence Hall—2025 H Street, NW.....	2,992.84	.....	2,992.84
School of Engineering.....	61,138.10	11,171.09	72,309.19
School of Medicine.....	67,541.74	4,198.46	71,740.20
School of Pharmacy.....	7,980.56	789.53	8,770.09
Staughton Hall.....	10,464.16	3,366.76	13,830.92
Strong Hall.....	18,117.63	.....	18,117.63
Student Club.....	13,027.86	.....	.....
Transferred to Student Union.....	.....	(-5,000.00)	.....
Equipment sold.....	.....	(-8,027.86)	.....
Student Store.....	.....	4,367.96	4,367.96
Student Union Building.....	18,773.23	13,276.92	32,050.15
Veterans Housing.....	20,000.00	.....	20,000.00
Welling Hall.....	6,633.95	624.63	7,258.58
	<u>1,974,332.64</u>	<u>225,631.51</u>	<u>2,199,964.15</u>
Less Depreciation—Hospital Equipment.....	.....	.....	198,000.00
TOTAL—EXHIBIT A.....	.....	.....	<u>2,001,964.15</u>

SCHEDULE 9



**CURRENT FUNDS RESTRICTED**  
For the Year Ended August 31, 1950  
**ORGANIZED RESEARCH FUNDS**

Funds	Balance August 31, 1949	Receipts	Disbursements			Balance August 31, 1950
			Salaries	Other Expense	Total	
<b>SCHOOL OF MEDICINE</b>						
Abbott, Lilly, and Upjohn.....	7.51	14,580.00	1,943.28	73.05	2,016.33	12,563.67
American Allergy Foundation.....				4.00	4.00	3.51
Arthritis.....		500.00		34.50	34.50	465.50
Baxter Laboratory—Dr. Blades.....	2,375.27	6,264.00	5,857.64	464.00	6,321.64	2,317.63
Dr. Blumenthal.....	166.74		166.74		166.74	
Burroughs-Wellcome and Co.....		2,500.00	899.96	1,010.00	1,909.96	590.04
Campbell Products.....	244.00	400.00				644.00
Cancer Control.....	969.81	160.00		200.00	200.00	929.81
Cardiology.....	466.35	2,900.00	1,956.52	148.55	2,105.07	1,261.28
Cecelia Cummings.....	2,207.06		1,687.50	322.67	2,010.17	196.89
Freeman, Keen.....		11,293.04	3,667.50	54.96	3,722.46	7,570.58
Hopkins, Ferd T., and Son.....	99.95			72.52	72.52	27.43
Hutchins, Helen F.....	2,494.67	10.00		11.00	11.00	2,493.67
Institute for the Study of Analgesic and Sedative Drugs.....	640.74	3,987.50	1,820.68	1,599.29	3,419.97	1,208.27
International Cellucotton Products.....	577.60			423.84	423.84	153.76
Johnson & Johnson Co.....	1,310.00					1,310.00
Lederle Laboratories.....	3,878.72	2,971.39	4,822.98	2,027.13	6,850.11	
Marcelle Fleischmann Foundation—Dr. Romansky.....	1,027.33	6,095.00	4,742.13	995.16	5,737.29	1,385.04
Mothers' Health Clinic.....	970.21	232.35		114.76	114.76	1,087.80
National Drug Co.....	119.66			118.76	118.76	90
National Foundation for Infantile Paralysis.....		7,120.00	480.00	391.39	871.39	6,248.61
Nutrition Foundation.....	1,018.11		400.00	137.31	537.31	480.80
Pfizer, Charles, and Co.....	2,540.26	5,855.54	7,429.12	966.68	8,395.80	











## PHARMACY

American Cyanamid and Chemical Corporation.

E. I. duPont de Nemours and Co...

Proprietary Association.....

20.94	20.94	20.94	20.94
153.00	21.71	21.71	131.29
747.36	44.75	44.75	702.61
921.30	87.40	87.40	833.90

# CHEMISTRY

Research Corporation.

United States Navy—N7onr-419-03.

United States Atomic Energy Commission—AT (30-1)—821.

3,364.67	1,175.00	2,853.30	2,853.30	1,686.37
.....	1,766.73	516.73	1,766.73	.....
.....	7,550.00	972.66	972.66	6,577.34
.....	.....	.....	.....	.....
3,364.67	10,491.73	4,342.69	5,592.69	8,263.71

## MATHEMATICS

United States Navy—N7onr-419-04.

## Physics

United States Navy—N7onr-419-02..

u u u N7onr-419-06.

	.....	.....	.....	.....
	38,049.19	29,311.03	8,738.16	38,049.19
	.....	.....	.....	.....
	15,421.60	12,229.34	3,192.26	15,421.60
	4,533.63	3,766.64	766.99	4,533.63
	.....	.....	.....	.....
	19,955.23	15,995.98	3,959.25	19,955.23
	.....	.....	.....	.....

## OTHER

United States Army—DA-18-108-CML-42.

United States Army—DA-18-108-CML-42  
" " " " W18-035-CWS-1338

United States Navy—NO-427  
W 16-093-4

United States Navy—NOP-471.  
" " " NO-484

NOV-1884.

47,628.30	37,347.95	10,280.35	47,628.30
509.11	509.11	509.11	509.11
3,300.82	3,475.00	4,378.36	7,853.36
310.31	40.24	270.07	310.31
40,148.09	26,167.97	13,980.12	40,148.09
3,300.82	67,031.16	29,418.01	96,449.17
			7,447.46

TOTAL—EXHIBIT C.

165,939.76	549,919.10	328,564.96	203,970.90	532,535.86	183,323.00
------------	------------	------------	------------	------------	------------



CURRENT FUNDS RESTRICTED (Continued)  
For the Year Ended August 31, 1950  
INCOME OF ENDOWMENT AND PLANT FUNDS

FUNDS	Balance August 31, 1949	Net Income for Year	Disposition			Balance August 31, 1950
			Current Operations	Added to Principal	Other	
ENDOWMENT FUNDS (Schedule 12)						
UNRESTRICTED						
Acker.....		12.39	12.39			
Alumni.....		24.00	24.00			
Campaign.....		7,713.13	7,713.13			
Corcoran.....		9,093.46	9,093.46			
Davis.....		1,716.94	1,716.94			
Goddard.....		1,387.79	1,387.79			
Haggett.....		41.30	41.30			
King.....		793.64	793.64			
Reichelderfer.....		619.53	619.53			
Sanders.....		87.15	87.15			
Subscription Gifts.....		517.33	517.33			
Syms.....		61.95	61.95			
Teller.....		579.06	579.06			
Trustees.....		62.94	62.94			
Weddell.....		711.38	711.38			
Willard Association.....		26.85	26.85			
Withers.....		1,110.67	1,110.67			
Woodhull.....		2,065.10	2,065.10			
			26,624.61			
SCHEDULE 1.....						
RESTRICTED						
Fellowship	1,500.00	3,110.93	1,200.00			1,910.93
King.....	271.68	7,853.87	7,128.00	1,500.00		997.55
Sanders.....						
Professorship						
Alumni.....		34.27	34.27			285.99
Carroll.....	265.34	34.27				
Congressional.....		6,555.00	6,555.00			
Depeu.....		6,932.93	6,000.00	932.93		
Elton.....		599.22	599.22			
Fry Funds.....		6,332.75		6,197.75		
Bronze tablet.....					135.00	
Yulee.....	3,699.24	206.51				3,905.75
School Government						
Statue Bixie.....		40,235.65	40,235.65			







CURRENT FUNDS RESTRICTED (Continued)  
For the Year Ended August 31, 1950  
INCOME OF ENDOWMENT AND PLANT FUNDS (Continued)

Funds	Balance August 31, 1949	Net Income for Year	Disposition			Balance August 31, 1950
			Current Operations	Added to Principal	Other	
ENDOWMENT FUNDS (Continued)						
RESTRICTED (Continued)						
Scholarship						
Andrews.....	17.96	167.44	150.00			35.40
Bartsch.....	2,147.91	827.40				2,975.31
Carr.....	2,851.00	2,007.65	1,650.00			6,208.65
Carter, H. H.....	1,248.09	206.51				1,454.60
Carter, M. M.....	259.62	41.30	30.00			270.92
Columbian Women Funds						
Brown.....	47.45	49.56	47.45			49.56
Chamberlin.....	90.94	95.00	90.94			95.00
College Women's.....	19.77	20.65	19.77			20.65
Founders of Columbian Women.	197.69	206.51	197.69			206.51
Herron.....	197.69	206.51	197.69			206.51
Knappp.....	197.69	206.51	184.46			219.74
Wilson.....	39.54	41.30				80.84
Davis.....	174.80	41.30	30.00			186.10
Dorsey.....	138.23	162.24	130.00			170.47
Farnham.....	169.62	41.30	30.00			180.92
Hampel.....	17.28	20.65				37.93
Harvey.....	47.30	118.74	150.00			16.04
Hazleton.....		203.61				203.61
Kendall.....	51.63	246.15				297.78
Morehouse.....	434.44	61.95				496.39
Pearson.....	482.96	117.29	85.00			515.25
Powell.....	9,808.35	2,065.10				11,873.45
Shepard.....	920.00	413.02				1,333.02
Spencer.....	339.49	129.00	200.00			268.49
Stone.....	430.64	82.60				513.24
Swisher.....	2,177.08	344.03				2,521.11
Walker.....	724.06	103.25				827.31
Withington.....	260.37	80.67	60.00			281.04
Woodhull.....	109.98	24.78	20.00			114.76
			3,273.00			
SCHOLARSHIPS AWARDED						



Prize	105.65	41.30	90.00		146.95
Burns.....	156.78	123.90	30.00		190.68
Cowles.....	69.58	41.30	30.00		80.88
Croissant.....	79.14	41.30	30.00		90.44
Cutter.....	211.90	28.91	100.00		210.81
Davis.....	46.21	123.90	35.00		70.11
Esary.....	82.79	49.56	40.00		97.35
Evans.....	282.29	41.30	160.00		283.59
Fitch.....	522.21	227.95	30.00		590.16
Goddard.....	134.00	41.30	20.00		145.30
Hubbard.....	60.99	33.04	210.00		74.03
Larner.....	596.97	206.51	15.00		593.48
Ordronaux.....	84.80	20.65	10.00		90.45
Ruggles.....	114.80	20.65	13.80		125.45
Saughton-Elton.....	44.44	41.30	30.00		43.03
Sterrett.....	259.62	41.30			270.92
Swisher.....	324.49	41.30			365.79
Walsh.....	610.55	206.51			817.06
Weddell.....					
Prizes Awarded.....		843.80			
Endowment Net Income.....	114,144.01				
PLANT FUNDS (Schedule 13)					
Field House.....		5.56		5.56	
George Washington Memorial.....		122.70		122.70	
Law School Expansion.....		238.72		238.72	
Pairo (Income used for athletics).....		2,949.89		2,949.89	
School of Engineering Building.....		3,046.80		3,046.80	
School of Medicine Building.....		52.93		52.93	
Women's Activities Building.....		152.29		152.29	
SCHEDULE 1.....			2,949.89		
TOTALS—EXHIBIT C.....	50,181.39	120,712.90	104,769.35	12,639.39	135.00
					53,350.55



# CURRENT FUNDS RESTRICTED (Continued)

For the Year Ended August 31, 1950

## MISCELLANEOUS FUNDS

Funds	Balance August 31, 1949	Gifts	Disbursements	Balance August 31, 1950
SCHOLARSHIP FELLOWSHIP				
American Foundation Pharm. Education.....	848.00	200.00	Scholarships.....	200.00
Dorsey, Charles W.....		336.00	"	
"			To Schedule 12.....	184.00
Freeman and Watts, Drs.....	466.67	600.00	"	1,000.00
Kellogg Medical Technology.....	1,350.00		1.....	600.00
Kinsey, R. D.....		200.00		
Northern Baptist.....	137.60		Refunded to donor.....	200.00
Pitt's Foundation.....	428.00		Scholarships.....	
President's Fund.....		950.00		
Soroptimist Club.....	786.00		Refunded to donor.....	950.00
Zonta Club.....	180.00		Scholarships.....	750.00
PRIZE				
Alpha Delta Pi Sorority.....		10.00	Prize.....	
Chi Omega Sorority.....		25.00	"	10.00
D. C. Daughters of the American Revolution.....		15.00	"	25.00
Delta Gamma Sorority.....	50.00		"	15.00
Delta Zeta Sorority.....		10.00	"	25.00
Ellsworth.....		25.00	"	10.00
Kappa Kappa Gamma Sorority.....		10.00	"	25.00
Pi Beta Phi Sorority.....		20.00	"	10.00
Sigma Kappa Sorority.....		10.00	"	20.00
Student Art Show.....		45.00	"	10.00
United Daughters of the Confederacy.....		25.00	To Schedule 13.....	45.00
				25.00







**CURRENT FUNDS RESTRICTED (Continued)**  
For the Year Ended August 31, 1950  
**AGENCY FUNDS**

Funds	Balance August 31, 1949	Receipts	Disbursements	Balance August 31, 1950
Colonial Review.....	191.00	262.00	Withdrawals.....	453.00
Courier.....	365.96	5,826.72	".....	5,409.90
Engineers' Club Room.....	199.93	.....	.....	199.93
Flower Fund.....	132.00	10.55	Withdrawals.....	107.00
Gift Shop.....	2,764.74	20,906.58	Withdrawals.....	6,970.53
Swisher History Club.....	120.75	.....	.....	120.75
Women's Board Lecture Series.....	702.40	453.10	Withdrawals.....	970.00
Women's Board Hospital Benefit.....	9,572.95	.....	".....	9,572.95
Yamulky, Perihan.....	136.50	3,000.00	".....	1,535.50
TOTALS—EXHIBIT C.....	14,186.23	30,458.95	.....	10,686.49



# CHANGES IN PRINCIPAL OF LOAN FUNDS

For the Year Ended August 31, 1950

Funds	Balance August 31, 1949	Additions			Refunded to U. S. Government	Balance August 31, 1950
		Income of D.C.—D.A.R. Endowment Fund	Gifts	Interest on Loans		
D.C.—D.A.R. Loan Fund.....	2,865.41	206.51				3,071.92
George Washington Law Association Loan Fund....	769.73			16.37		786.10
Harris Loan Fund.....			400.00			400.00
Home Economics Loan Fund.....	352.35		30.00			382.35
Kellogg Medical School Loan Fund.....	16,345.20			186.59		16,531.79
Sutherland Medical School Loan Fund.....	1,200.00					1,200.00
University Loan Fund.....	8,125.01			40.71		8,165.72
War Loan Fund.....	7,860.30				1,109.18	6,751.12
TOTALS—EXHIBIT D.....	37,518.00	206.51	430.00	243.67	1,109.18	37,289.00

SCHEDULE 11



CHANGES IN PRINCIPAL OF ENDOWMENT FUNDS

For the Year Ended August 31, 1950

FUNDS	Balance August 31, 1949	Additions			Deductions	Balance August 31, 1950
		Gifts	Investment Income	Other		
UNRESTRICTED	300.00					300.00
Acher.....	581.20					681.20
Alumni.....	186,749.38	100.00				186,749.38
Campaign.....	220,155.76					220,155.76
Corcoran.....	41,570.40					41,570.40
Davis.....	33,601.15					33,601.15
Goddard.....	1,000.00					1,000.00
Hazlett.....	19,215.50					19,215.50
King.....	15,000.00					15,000.00
Reisfelderfer.....	2,110.00					2,110.00
Sanders.....	12,525.56					12,525.56
Subscription Gifts.....	1,500.00					1,500.00
Tyms.....	11,104.14					11,104.14
Tiller.....	1,524.06					1,524.06
Tucker.....	5,000.00	5,000.00				10,000.00
Widdell.....		1,000.00				1,000.00
Willard Association.....	26,891.46					26,891.46
Wither.....	50,000.00					50,000.00
Woodhull.....						



RESTRICTED

FELLOWSHIP					
King.....	73,821.42		1,500.00		75,321.42
Sanders.....	213,030.15				206,602.87
Loss on sale of investments.....				6,427.28	

PROFESSORSHIP					
Alumni.....	829.67				829.67
Carroll.....	500.00				500.00
Congressional.....	158,709.04				158,709.04
Depew.....	167,859.31		932.93		168,792.24
Elton.....	14,508.19				14,508.19
Fry (controlled by the University).....	24,471.71		6,197.75		30,669.46
Fry (controlled by National Savings and Trust Co.).....	102,561.59				102,561.59
Gain on sale of investments.....				430.90	
Yulee.....	5,000.00				5,000.00



CHANGES IN PRINCIPAL OF ENDOWMENT FUNDS (Continued)

For the Year Ended August 31, 1950

Funds	Balance August 31, 1949	Additions			Deductions	Balance August 31, 1950
		Gifts	Investment Income	Other		
RESTRICTED (Continued)						
School						
Government	1,000,000.00					1,000,000.00
Scottish Rite.....						
Medicine	3,254.37					3,388.80
Borden.....	2,828.00		134.43			2,828.00
Collins.....	10,000.00					10,000.00
Cooper.....	9,268.04	2,025.00				
Fresman.....					11,293.04	
Transferred to Organized Research—Schedule 10.....						
Gardner.....	4,486.55					4,486.55
Lewis.....	32,298.60					32,298.60
School of Medicine Fund.....	8,081.00	410.00				8,491.00
Sharpe.....	8,334.13					8,334.13
Pharmacy						
Gibbs.....	10,000.00					10,000.00







**CHANGES IN PRINCIPAL OF ENDOWMENT FUNDS (Continued)**  
For the Year Ended August 31, 1950

FUNDS	Balance August 31, 1949	Additions			Deductions	Balance August 31, 1950
		Gifts	Investment Income	Other		
<b>RESTRICTED (Continued)</b>						
<b>SCHOLARSHIP</b>						
Andrews.....	5,149.41				9.43	5,139.98
Loss on sale of investments.....	20,033.06					20,033.06
Bartsch.....	48,608.91					48,608.91
Carr.....	5,000.00					5,000.00
Carter, H. H.....	1,000.00					1,000.00
Carter, M. M.....						
<b>Columbian Women Scholarship Funds</b>						
Brown.....	1,200.00					1,200.00
Chamberlin.....	2,300.00					2,300.00
College Women's.....	500.00					500.00
Founders of Columbian Women.....	5,000.00					5,000.00
Herron.....	5,000.00					5,000.00
Knapp.....	1,000.00					1,000.00
Wilson.....						
Davis.....	1,000.00	1,000.00				1,000.00
Dorsey.....	3,000.00					3,000.00
Transferred from Schedule 10-Page 5.....				1,000.00		1,000.00
Farnham.....	1,000.00					1,000.00
Hampel.....	500.00					500.00
Harvey.....	5,031.97	5,000.00				5,031.97
Hazelton.....	5,959.61					5,959.61
Kendall.....	1,500.00					1,500.00
Morchouse.....	2,839.80					2,839.80
Pearson.....	50,000.00					50,000.00
Powell.....	10,000.00					10,000.00
Shepard.....	7,434.20					7,434.20
Spencer.....	2,000.00					2,000.00
Stone.....	7,529.55	800.00				8,329.55
Swisher.....	2,500.00					2,500.00
Wickham.....	1,900.13					1,900.13
Withington.....	1,600.00					1,600.00
Woodhull.....						







# CHANGES IN PRINCIPAL OF PLANT FUNDS

For the Year Ended August 31, 1950

Funds	Balance August 31, 1949	Additions			Deductions	Balance August 31, 1950
		Gifts	Investment Income	Other		
<b>PLANT ADDITIONS</b>						
Field House, .....	185.40	.....	5.56	.....	.....	190.96
George Washington Memorial .....	5,153.07	.....	122.70	.....	1,933.11	3,130.75
Auditorium equipment purchased .....	.....	.....	.....	.....	211.91	.....
Transferred to Surplus—Exhibit B. ....	.....	.....	.....	.....	.....	.....
Hospital Equipment.....	.....	18,213.23	.....	.....	18,213.23	.....
Equipment purchased.....	7,957.13	.....	238.72	.....	.....	8,195.85
Law School Expansion.....	.....	.....	.....	.....	.....	.....
Library Book Funds						
Brock, Mabel C.....	30.40	.....	.....	.....	10.32	20.08
Books purchased.....	50.00	.....	.....	.....	50.00	.....
Butler, Henry F.....	.....	.....	.....	.....	.....	58.75
Books purchased.....	58.75	.....	.....	.....	.....	.....
Class of 1945.....	429.91	.....	.....	.....	.....	.....
Council of Religious Organizations .....	.....	.....	.....	.....	82.12	347.79
Books purchased.....	25.00	.....	.....	.....	.....	25.00
Davis, Harry C.....	.....	1,000.00	.....	.....	.....	1,000.00
Ellison, Newell W.....	45.00	.....	.....	.....	.....	45.00
Engineers.....	225.00	.....	.....	.....	.....	225.00
Helene Society.....	100.00	.....	.....	.....	.....	100.00
Herbst, Louise C.....	160.00	.....	.....	.....	.....	160.00
Hospital.....	7.02	.....	.....	.....	.....	7.02
Lincoln Arc Welding.....	9.80	.....	.....	.....	.....	9.80
Murdock, Mrs. James O.....	.....	.....	.....	.....	.....	.....



Noyes, Theodore.....	4,706.76					150.19	4,556.57
Books purchased.....	58.23						58.23
Rosen, Dr. John N.....	2.00						27.00
United Daughters of the Confederacy.....					25.00		
Transferred from Schedule 10—Page 5.....							
Ohio Section of the G. W. Memorial Association.....	1,663.39					1,663.39	
Auditorium equipment purchased.....							
Pairo.....	130,626.63						130,626.63
School of Engineering Building.....	80,784.58	47,333.10	3,046.80				131,164.48
School of Medicine Building.....	1,764.09		52.93				1,817.02
Women's Activities Building.....	5,076.17		152.29				5,228.46
Women's Board Gift Shop Equipment.....		6,610.07				6,530.90	79.17
To reduce Deferred Charge—Hospital Equipment (page 9).....							
	239,118.33	73,156.40	3,619.00		25.00	28,845.17	287,073.56
RESERVE FOR PROTECTION OF INVESTMENTS.....	1,143.29		2,203.47				
Investment income in excess of 3%.....					2,721.32		6,068.08
Gain on sale of investments.....							
TOTALS—EXHIBIT F.....	240,261.62	73,156.40	5,822.47		2,746.32	28,845.17	293,141.64



# GIFTS AND GRANTS For the Year Ended August 31, 1950

## CURRENT FUNDS

RESTRICTED—GENERAL—SCHEDULE 1		
Medical School—Dr. Edward A. Cafritz.....	150.00	
"          "          Dr. John Minor.....	150.00	
"          "          Dr. H. B. Fermaglich.....	90.00	
"          "          Various donors.....		490.00
		100.00
Alumni Office Expense—General Alumni Association.....		825.00
RESTRICTED—HOSPITAL—SCHEDULE 1		40.00
Harvard Mutual Foundation.....		25.00
Dr. Paula R. Kaiser.....		25.00
James L. Karrick.....		20.00
Eather Knight.....		10.00
Harry Sheffield.....		10.00
Edward and Gladys Mooneyham.....		12.00
Anonymous.....		
		957.00
RESTRICTED—SCHEDULE 10—PAGE 2		
Organized Research—various donors and grantors.....		549,919.10
RESTRICTED—SCHEDULE 10—PAGE 5		
Scholarship, Fellowship—American Foundation Pharmaceutical Education.....	200.00	
"          "          Charles W. Dorsey.....	336.00	
"          "          Charles Freeman and Watts.....	600.00	
"          "          Kinsey, R. D.....	200.00	
"          "          Lucretia Davis Jephson.....	950.00	
Prize—Alpha Delta Pi Sorority.....	10.00	
"          Chi Omega Sorority.....	25.00	
"          D. C. Daughters of the American Revolution.....	15.00	
"          Delta Zeta Sorority.....	10.00	
"          Ellsworth—Mrs. Fritz von Briesen.....	25.00	
"          Kappa Kappa Gamma Sorority.....	10.00	
"          Pi Beta Phi Sorority.....	20.00	
"          Sigma Kappa Sorority.....	10.00	
"          Student Art Show—Harryman Dorsey.....	45.00	
"          United Daughters of the Confederacy.....	25.00	
Law School—Patent Law Foundation.....	600.00	
School of Medicine—Dermatology and Syphilology—Dr. H. Ford Anderson.....	10,000.00	
"          Markle Foundation.....	100.00	
"          Research in Surgery—Dr. William W. Chase.....	100.00	
"          "          Dr. Hugo V. Rizzoli.....	75.00	
School of Pharmacy—D. C. Women's Pharmaceutical Auxiliary.....	25.00	
Speech Department—Speech Clinic Foundation.....		100.00
		500.00
		33,881.00
		585,347.10



LOAN FUNDS (Schedule 11)

Harris Loan Fund—George W. Harris.....	400.00	430.00
Home Economics Loan Fund—D. C. Home Economics Association.....	30.00	
	<hr/>	

ENDOWMENT FUNDS (Schedule 12)

<b>UNRESTRICTED</b>		
Alumni Endowment Fund—Julia M. Escher.....	100.00	
Weddell Endowment Fund—Virginia Chase Weddell.....	5,000.00	
Willard Association Endowment Fund—Willard Association.....	1,000.00	
	<hr/>	6,100.00
<b>RESTRICTED</b>		
School of Medicine		
Freeman Memorial Fund—Dr. Walter Freeman.....	2,000.00	
George A. Rogers.....	25.00	
School of Medicine Fund—Dr. L. H. Andrus.....	200.00	2,025.00
Dr. Mary Cruise.....	200.00	
Dr. James F. Dowd.....	10.00	
	<hr/>	410.00
Miscellaneous		
Graduate Endowment Fund—Ruth E. Davis.....	100.00	
Harry S. Berlesky.....	100.00	
E. O. Seaguit.....	100.00	
F. G. Van Alstine.....	70.00	
Maria E. Morgan.....	70.00	
Dr. William S. Miller.....	20.00	
Dr. Samuel Topperman.....	20.00	
Elizabeth Larrick.....	11.00	
Florence Jansson.....	11.00	
Arthur C. Adams.....	10.00	
Courtland H. Davis.....	10.00	
Samuel Greenberg.....	10.00	
Ellis B. Miller.....	10.00	
	<hr/>	542.00
Hospital		
Burton Fund—Grace C. Burton.....	1,000.00	
Scholarship		
Dorsey Scholarship Fund—Harryman Dorsey.....	1,000.00	
Hazelton Scholarship Fund—Lillie S. Hazelton.....	5,000.00	
Swisher Scholarship Fund—Estate of Dr. Charles Clinton Swisher.....	800.00	
	<hr/>	10,777.00
		<hr/>
		16,877.00



GIFTS AND GRANTS (Continued)

For the Year Ended August 31, 1950

PLANT FUNDS (Schedule 13)

Hospital Equipment Funds—various donors.....	18,213.23
Library Book Funds—Newell W. Ellison.....	1,000.00
School of Engineering Building Fund—Charles H. and Lida R. Tompkins.....	47,333.10
Women's Board Gift Shop Equipment Fund—Women's Board of the George Washington University Hospital.....	<u>6,610.07</u>
	73,156.40
TOTAL GIFTS AND GRANTS.....	<u><u>675,810.50</u></u>



# DESCRIPTION OF LOAN FUNDS

August 31, 1950

DISTRICT OF COLUMBIA D. A. R. LOAN FUND Created in 1938 from income of the D. C.—D. A. R. Endowment Fund. To be loaned to descendants of patriots of the American Revolution.....	3,071.92
GEORGE WASHINGTON LAW ASSOCIATION LOAN FUND Created in 1941 by the George Washington Law Association to be loaned to students of the Law School.....	786.10
HARRIS LOAN FUND Created in 1950 by gift of George W. Harris to be loaned to an orthoptic technician student.....	400.00
HOME ECONOMICS LOAN FUND Created in 1940 by the D. C. Home Economics Association to be loaned to senior girls majoring in home economics...	382.35
KELLOGG LOAN FUND Created in 1942 by the W. K. Kellogg Foundation to be loaned to students of the School of Medicine.....	16,531.79
SUTHERLAND LOAN FUND Created in 1941 by Rose L. Sutherland and other donors, to be loaned to students of the School of Medicine.....	1,200.00
UNIVERSITY LOAN FUND Created in 1928 by the University to make short time loans for educational purposes.....	8,165.72
WAR LOAN FUND Created in 1942 by the United States Government to be loaned to students in technical and professional fields of national defense.....	6,751.12



# DESCRIPTION OF ENDOWMENT FUNDS

August 31, 1950

## UNRESTRICTED FUNDS

ACKER FUND Bequest of George N. Acker, M. D., received in 1924, the income only to be used.....	300.00
ALUMNI ENDOWMENT FUND Created by the Class of 1920, to be added to by succeeding graduating classes, the income only to be used.....	681.20
CAMPAIGN FUND Created in 1923-24 by various donors, the income only to be used.....	186,749.38
CORCORAN FUND Gift of William W. Corcoran of \$112,000, and gifts of other donors between the years 1871-86, the income only to be used.....	220,155.76
DAVIS FUND Bequest of Harry C. Davis, received in 1946, the income only to be used.....	41,570.40
GODDARD ENDOWMENT FUND Bequest of Frederick J. Goddard, received in 1949, the income only to be used.....	33,601.15
HAGGETT FUND Created in 1941 by Isabelle Barnes Haggett, the income only to be used.....	1,000.00
KING, W. B., FUND Created in 1941 by William B. King, the income only to be used.....	19,215.50



REICHELDERFER FUND Created by Mary M. Reichelderfer in 1945, in memory of her husband, Luther H. Reichelderfer, the income only to be used.....	15,000.00
SANDERS ENDOWMENT FUND Created by J. Sanders in 1945, the income only to be used.....	2,110.00
SUBSCRIPTION GIFTS FUND Created by various donors during the years 1845-51, the income only to be used. (Formerly called the Poindexter Endowment Fund).....	12,525.56
SYMS FUND Bequest of Samuel Syms in 1891, the income only to be used.....	1,500.00
TELLER FUND Bequest of John D. Teller and Mary L. Teller, received in 1949, the income only to be used.....	11,104.14
TRUSTEES FUND Created by the Board of Trustees of the University in 1932, the income only to be used.....	1,524.06
WEDDELL FUND Created in 1948 by bequests of Alexander W. Weddell and Virginia Chase Weddell, the income only to be used.....	10,000.00
WILLARD ASSOCIATION FUND Gift of the Willard Association in 1950, the income only to be used.....	1,000.00
WITHERS FUND Gift of John Withers of \$16,000, and gifts of various donors during the years 1851-70, the income only to be used. (Formerly called the Forty Thousand Dollar Endowment Fund).....	26,891.46
WOODHULL FUND Bequest of Margaret Willett Woodhull, received in 1946, the income only to be used.....	50,000.00



# DESCRIPTION OF ENDOWMENT FUNDS (Continued)

August 31, 1950

## FELLOWSHIP FUNDS

KING FELLOWSHIP FUND Created in 1928 by bequest of Isabella Osborn King, the income to be used for a fellowship in biology.....	75,321.42
SANDERS FELLOWSHIP FUND Bequest of Addie Sanders in 1928 in memory of her brother, Thomas Bradford Sanders, the income to be used for fellowships in various academic fields of study.....	206,602.87

## PROFESSORSHIP FUNDS

ALUMNI PROFESSORSHIP FUND Gifts of various alumni since 1911, the income to be used for an alumni professorship in mathematics.....	829.67
CARROLL PROFESSORSHIP FUND Created by Mary A. Sharpe in 1928, in memory of Mitchell Carroll, the income to be used for a chair in archeology..	500.00
CONGRESSIONAL PROFESSORSHIP FUND Created in 1832 by gift of the United States of America, by Act of Congress, the income to be used for professorships.	158,709.04
DEPEW COURSE IN PUBLIC SPEAKING FUND Created by May Depew in 1936, the income to be used for a course to be known as the "Chauncey M. Depew Course in Public Speaking"; income in excess of \$6,000 annually to be added to principal.....	168,792.24
ELTON PROFESSORSHIP FUND Bequest of Romeo Elton of Exeter, England, in 1872, the income to be used for a professorship to be called the "Elton Professorship of Mental and Moral Philosophy".....	14,508.19
FRY PROFESSORSHIP FUNDS Bequest of Annabel Lee Fry, received in 1945, in memory of her husband, Dr. Henry D. Fry, the income to be used for a professorship in physiology.....	102,992.49
Created in 1945 from income of the original fund, the income of the two funds to be used for a professorship in physiology.....	30,669.46
YULEE ENDOWMENT FUND Bequest of Nannie Yulee Noble in memory of her mother, Nancy Yulee, in 1929, the income to be used for lectures in home economics.....	5,000.00



# SCHOOL FUNDS

## GOVERNMENT

### SCOTTISH RITE ENDOWMENT FUND

Created in 1928 by the Supreme Council of the Ancient and Accepted Scottish Rite of Freemasonry of the Southern Jurisdiction of the United States of America, as a permanent memorial to George Washington, The Mason, the income to be used to maintain a School of Government.....1,000,000.00

## MEDICAL

### BORDEN MEDICAL FUND

Created in 1932 by William Cline Borden, M. D., and Jennie Ella Borden, the income to be applied to lectureships to be known as the "William Cline Borden Lectures on Surgery or Medical Science." Any income not required annually shall be added to principal.....3,388.80

### COLLINS MEDICAL RESEARCH FUND

Created in 1946 by various donors in memory of Dr. James Lloyd Collins, the income to be used for special research in surgery.....2,828.00

### COOPER MEDICAL RESEARCH FUND

Bequest of Eleanor J. Cooper in 1905, on certain terms since modified by the Supreme Court of D. C. as follows: the income to be used toward the establishment and maintenance, in connection with the Medical Department of the University, of a Research Laboratory, the work of this laboratory to be devoted to the investigation of the nature, causation, prevention, and cure of malaria and other infectious and contagious diseases.....10,000.00

### GARDNER MEDICAL SCHOOL FUND

Bequest of William D. Gardner, received in 1928, the income to be used for the School of Medicine.....4,486.55

### LEWIS MEDICAL SCHOOL FUND

Bequest of Samuel E. Lewis, received in 1925, the income to be used for the School of Medicine.....32,298.60

### SCHOOL OF MEDICINE ENDOWMENT FUND

Created in 1940 by various donors, the income to be used for the School of Medicine.....8,491.00

### SHARPE MEDICAL SCHOOL FUND

Created by Mary A., Elizabeth M., and Sallie Sharpe in 1924, the income to be used for the School of Medicine...8,334.13

## PHARMACY

### GIBBS PHARMACY FUND

Created by M. G. Gibbs in 1927, the income to be used to aid in establishing and maintaining a commercial pharmacy course in connection with the School of Pharmacy.....10,000.00



DESCRIPTION OF ENDOWMENT FUNDS (Continued)  
August 31, 1950

MISCELLANEOUS FUNDS

DISTRICT OF COLUMBIA D. A. R. ENDOWMENT FUND Created in 1926 by chapters in the District of Columbia, the income to be added to the D. C.—D.A.R. Loan Fund..	5,000.00
GRADUATE ENDOWMENT FUND Created by the Class of 1926, to be used for the acquisition of sites, erection of buildings, and maintenance and purchase of equipment. Only the income may be used until Fund reaches \$50,000 when income, and principal over \$50,000, may be used.....	13,266.57

HOSPITAL FUNDS

BURTON HOSPITAL FUND Created by Grace C. Burton in 1950, the income to be used for medicine for indigent persons.....	1,000.00
CHAPMAN HOSPITAL FUND Bequest of Mrs. Susanna A. Chapman in 1911, the income to be used for the purposes of the free wards of the University Hospital.....	1,225.90
GENERAL HOSPITAL ENDOWMENT FUND Created in 1929 by various donors, the income to be used for the benefit of the University Hospital.....	1,200.00
HOUSER HOSPITAL FUND Bequest of E. Keller Houser, received in 1944, the income to be used to endow a room in memory of his daughter, Anna Victoria Houser.....	2,500.00
KIMMEL HOSPITAL FUND Bequest of Annie Kimmel, received in 1932, the income to be used for the benefit of the University Hospital.....	3,071.70



<b>KUHLBANK HOSPITAL FUND</b>	
Bequest of Freda Kuhlbank, received in 1930, the income to be added to the principal until the principal shall be large enough to maintain a bed in the White Ward of the University Hospital to be known as the "Freda Kuhlbank Bed".....	1,229.47
<b>NATIONAL PARK SEMINARY HOSPITAL FUND</b>	
Gift of students of National Park Seminary of Forest Glen, Maryland, in 1906, the income to be used toward the maintenance of a bed in the University Hospital.....	500.00
<b>REINHARDT HOSPITAL FUND</b>	
Bequest of Luisa Wynne Reinhardt in 1922, the income to be used for the University Hospital.....	500.00
<b>TREE HOSPITAL FUND</b>	
Created in 1911 by bequest of Lambert M. Tree, in memory of his mother, Mrs. Laura M. Tree, the income to be used to maintain one or more beds in the University Hospital, to be known as the "Laura M. Tree Bed or Beds".....	10,000.00
<b>WOODBURY HOSPITAL FUND</b>	
Bequest of Ellen DeQ. Woodbury in 1909, the income to be used for the reception and treatment of female patients in the University Hospital.....	10,000.00

— 89 —

## LIBRARY FUNDS

<b>HOWARD LIBRARY FUND</b>	
Gift of Colonel Deane Childs Howard in 1943 in memory of Captain Deane Childs Howard, Jr., the income to be used to purchase books for the Library.....	5,000.00
<b>MEYER LIBRARY FUND</b>	
Gift of Eugene Meyer in 1944, the income to be used to purchase books for the Library.....	1,000.00
<b>NOYES LIBRARY FUND</b>	
Bequest of Theodore W. Noyes, received in 1947, the income to be used to purchase books for the Library.....	10,000.00
<b>SWISHER ALCOVE BOOK FUND</b>	
Gift of Dr. Charles Clinton Swisher in 1941, in trust for the Historical Society of the University, the income to be used to purchase books for the Swisher Alcove in the Library.....	2,000.00



DESCRIPTION OF ENDOWMENT FUNDS (Continued)  
August 31, 1950

SCHOLARSHIP FUNDS

ANDREWS MEMORIAL SCHOLARSHIP FUND Gift of Belle Fisk Andrews in 1920 in memory of her husband, Byron Andrews, the income to be used for scholarships "for ambitious and needy students of English, Latin, journalism, history, literature, or political science."	5,139.98
BARTSCH SCHOLARSHIP FUND Created by Dr. Anna Bartsch-Dunne in 1946, the income to be used for a scholarship for a woman in the School of Medicine and an internship for a woman in the University Hospital.	20,033.06
CARR SCHOLARSHIP FUND Created by bequest of Emma K. Carr in 1932, the income to be used for scholarships for young white men.	48,608.91
CARTER, H. H., SCHOLARSHIP FUND Gift of Maria M. Carter in 1896, in memory of her husband, Henry Harding Carter, the income to be used for scholar- ships in civil engineering.	5,000.00
CARTER, M. M., SCHOLARSHIP FUND Gift of Maria M. Carter in 1871, the income to be used for scholarships for young men.	1,000.00



# COLUMBIAN WOMEN SCHOLARSHIP FUNDS

<b>BROWN SCHOLARSHIP FUND</b> Created by the College Women's Club of Washington, D. C., in 1925, in memory of Elizabeth V. Brown, the income to be used for scholarships in the School of Education.....	1,200.00
<b>CHAMBERLIN SCHOLARSHIP FUND</b> Created by the Columbian Women of The George Washington University in 1932 in memory of Grace Ross Chamberlin, the income to be used for scholarships for young women.....	2,300.00
<b>COLLEGE WOMEN'S SCHOLARSHIP FUND</b> Gift of the College Women's Club of Washington, D. C., in 1926, the income to be used for scholarships.....	500.00
<b>FOUNDERS OF COLUMBIAN WOMEN SCHOLARSHIP FUND</b> Created by the Columbian Women of The George Washington University in 1920, the income to be used for scholarships for women in Columbian College.....	5,000.00
<b>HERRON SCHOLARSHIP FUND</b> Created by the Columbian Women of The George Washington University in 1925 in memory of Lillian Young Herron, the income to be used for scholarships for women in Columbian College. (Formerly Third Columbian Women Scholarship Fund).....	5,000.00
<b>KNAPP SCHOLARSHIP FUND</b> Gift of the Columbian Women of The George Washington University in 1915, in memory of Nellie Maynard Knapp, the income to be used for scholarships for women.....	5,000.00
<b>WILSON SCHOLARSHIP FUND</b> Gift of Elizabeth Wilson in 1926 in memory of her parents, Lewes D. and Myrtie H. Wilson, the income to be used for scholarships in the School of Medicine.....	1,000.00



# DESCRIPTION OF ENDOWMENT FUNDS (Continued)

August 31, 1950

## SCHOLARSHIP FUNDS (Continued)

DAVIS SCHOLARSHIP FUND Gift of Isaac Davis in 1869, the income to be used for scholarships.....	1,000.00
DORSEY SCHOLARSHIP FUND Created in 1947 by Harryman Dorsey in memory of Charles Worthington Dorsey, the income to be used for scholarships.....	5,000.00
FARNHAM SCHOLARSHIP FUND Gift of Mrs. Robert Farnham in 1871, the income to be used for scholarships in Columbian College.....	1,000.00
HAMPEL SCHOLARSHIP FUND Gift of Evelyn Hampel Young in 1948 in memory of her mother, Anna Spickel Hampel, the income to be used for Scholarships for married women in the School of Education or Columbian College.....	500.00
HARVEY SCHOLARSHIP FUND Bequest of Emma Elizabeth Harvey, received in 1923, in memory of her daughter, Elma Lewis Harvey, the income to be used for scholarships in Columbian College for young women of the Protestant faith and of the Caucasian race.....	5,031.97
HAZELTON SCHOLARSHIP FUND Bequest of Lillie S. Hazelton, received in 1950, the income to be used for scholarships.....	5,000.00
KENDALL SCHOLARSHIP FUND Gift of Amos Kendall in 1869, the income to be used for a scholarship now designated by the Board of Trustees as one of the two High School Scholarships assigned to Central High School.....	5,959.61
MOREHOUSE SCHOLARSHIP FUND Created by A. Morehouse in 1861, the income to be used for scholarships for undergraduates intending to enter the Christian ministry.....	1,500.00
PEARSON SCHOLARSHIP FUND Bequest of Paul Pearson, received in 1944, the income to be used for scholarships in the School of Pharmacy.....	2,839.80



<b>POWELL SCHOLARSHIP FUND</b>	
Gift of Levin M. Powell in 1886, the income to be used to train young men for entrance in the United States Naval Academy or to fit them to become mates and masters in the Merchant Marine Service of the United States.....	50,000.00
<b>SHEPARD SCHOLARSHIP FUND</b>	
Bequest of Lula M. Shepard, received in 1946, the income to be used for scholarships in the School of Government..	10,000.00
<b>SPENCER SCHOLARSHIP FUND</b>	
Created by Louisa J. Spencer in 1918, the income to be used for scholarships.....	7,434.20
<b>STONE SCHOLARSHIP FUND</b>	
An anonymous gift in 1893 in memory of Mary Lowell Stone, the income to be used for scholarships for women students of science in Columbian College.....	2,000.00
<b>SWISHER SCHOLARSHIP FUND</b>	
Created by Dr. Charles Clinton Swisher in 1941, the income to be used to award scholarships in Medieval History..	8,329.55
<b>WALKER SCHOLARSHIP FUND</b>	
Gift of William Walker in 1824, the income to be used for scholarships for undergraduates intending to enter the Christian ministry.....	2,500.00
<b>WITHINGTON SCHOLARSHIP FUND</b>	
Gift of the New York Baptist Theological Seminary in 1830, on behalf of John Withington, the income to be used for scholarships.....	1,953.13
<b>WOODHULL SCHOLARSHIP FUND</b>	
Bequest of Ellen M. E. Woodhull, received in 1921, the income to be used for scholarships in Columbian College..	600.00



# DESCRIPTION OF ENDOWMENT FUNDS (Continued)

August 31, 1950

## PRIZE FUNDS

BURNS MEMORIAL AWARD FUND Gift of Persia Burns in 1937 in memory of her son, Byrne Thurtell Burns, the income to be used for an annual award in chemistry.....	1,000.00
COWLES PRIZE FUND Created in 1943 by John Henry Cowles, the income to be used for annual awards in the School of Government.....	3,000.00
CROISSANT PRIZE AWARD Bequest of DeWitt Clinton Croissant, received in 1941, the income to be used to award an annual prize for excellence in dramatics or dramatic studies.....	1,000.00
CUTTER PRIZE FUND Gift of Marion Kendall Cutter in 1902, in memory of E. K. Cutter, the income to be used for an annual award for excellence in the study of English.....	1,000.00
DAVIS PRIZE FUND Gift of Isaac Davis in 1847, the income to be used for annual awards to members of the senior class who have made the greatest progress in elocution since their connection with the University.....	700.00
ESSARY PRIZE FUND Gift of Helen Essary Murphy in 1948 in memory of her late husband, Jesse Frederick Essary, the income to be used for an annual award in journalism.....	3,000.00
EVANS MEMORIAL AWARD FUND Created in 1937 by friends of Joshua Evans III, the income to be used to establish a prize, as a memorial to an "out-standing life," to be awarded annually "to that man in the graduating class who has demonstrated his signal ability in the social and political sciences and who has given promise of the interpretation of that ability in good citizenship among his fellows".....	1,200.00
FITCH PRIZE FUND Gift of James E. Fitch in 1883 in memory of Willie E. Fitch, the income to be used for an annual award to a senior student for the best general examination in chemistry.....	1,000.00
GODDARD PRIZE FUND Gifts of Mary W. Goddard, Alice Douglas Goddard, and Frederick J. Goddard, in 1923, in memory of Morgan Richardson Goddard, Edward Carrington Goddard, and James Douglas Goddard; added to in 1941 by a gift of Frederick J. Goddard in memory of Alice Douglas Goddard. The income shall be used to award four cash prizes annually to the students making the highest averages in commerce, French language and literature, pharmacy, and American literature, respectively.....	5,519.00



HUBBARD PRIZE FUND	
Gift of Gertrude M. Hubbard in 1907, in memory of her husband, Gardiner G. Hubbard, the income to be used for an annual award for excellence in American history.....	1,000.00
LARNER PRIZE FUND	
Bequest of John B. Larnier in 1933, the income to be used for an annual award in the Law School.....	800.00
ORDRONAUX PRIZE FUND	
Bequest of John Ordronaux in 1909, the income to be used for annual awards in the Law and Medical schools.....	5,000.00
RUGGLES PRIZE FUND	
Gift of William Ruggles in 1859, the income to be used for an annual award for excellence in mathematics.....	500.00
STAUGHTON-ELTON PRIZE FUND	
Created by gift of Romeo Elton of Exeter, England, in 1860, the income to be used for annual awards for excellence in the Latin and Greek languages, one to be called the Staughton Prize in Latin, the other the Elton Prize in Greek..	500.00
STERRETT PRIZE FUND	
Gift of the Reverend J. MacBride Sterrett, in 1911, in memory of his son, J. MacBride Sterrett, Jr., the income to be used for books to be awarded annually to the student obtaining the highest average in general physics.....	300.00
SWISHER PRIZE FUND	
Gift of Charles Clinton Swisher in 1941, the income to be applied yearly to enlarging the sum set apart for the Historical Prize established in his name by the Historical Club, December 7, 1936.....	1,000.00
WALSH PRIZE FUND	
Gift of Thomas F. Walsh in 1901, the income to be used for an annual award for the best essay on some topic in Irish history.....	1,000.00
WEDDELL PRIZE FUND	
Gift of Virginia Chase Weddell in 1923, the income to be used to award annually the Alexander Wilbourne Weddell Prize to the student submitting the best essay upon the general subject of the promotion of peace among the nations of the world.....	5,000.00

#### RESERVES FOR PROTECTION OF INVESTMENTS OF ENDOWMENT FUNDS

RESERVE FOR PROTECTION OF CONSOLIDATED ENDOWMENT FUNDS INVESTMENTS	
Created from gains arising from the sale of investments, and by setting aside annually a portion of the net income of Consolidated Endowment Funds Investments.....	68,007.45
RESERVE FOR PROTECTION OF SCOTTISH RITE ENDOWMENT FUND INVESTMENTS	
Created from gains arising from the sale of Scottish Rite Investments.....	59,909.38



# DESCRIPTION OF PLANT FUNDS

August 31, 1950

## PLANT ADDITIONS

FIELD HOUSE FUND	190.96
Created by the Class of 1946 to assist in building a field house.....	
GEORGE WASHINGTON MEMORIAL FUND	3,130.75
Created in 1937 by transfer of the assets of the George Washington Memorial Association to the University, to be used toward the erection and equipping of the auditorium.....	
LAW SCHOOL EXPANSION FUND	8,195.85
Created in 1945 by various donors, to be used for the acquisition of land and the erection of a building or buildings for the use of the Law School.....	
LIBRARY BOOK FUNDS—GIFTS OF VARIOUS DONORS	20.08
BROCK, MABEL C., LIBRARY FUND.....	58.75
CLASS OF 1945 LIBRARY FUND.....	347.79
COUNCIL OF RELIGIOUS ORGANIZATIONS LIBRARY FUND.....	25.00
DAVIS, HARRY C., LIBRARY FUND.....	1,000.00
ELLISON, NEWELL W., LIBRARY FUND.....	45.00
ENGINEERS' LIBRARY FUND.....	225.00
HELLENIC SOCIETY LIBRARY FUND.....	100.00
HERBST LIBRARY FUND.....	160.00
HOSPITAL LIBRARY FUND.....	7.02
LINCOLN ARC WELDING FOUNDATION LIBRARY FUND.....	9.80
MURDOCK, MRS. JAMES O., LIBRARY FUND.....	4,556.57
NOYES, THEODORE W., LIBRARY FUND.....	58.23
ROSEN LIBRARY FUND.....	27.00
UNITED DAUGHTERS OF THE CONFEDERACY LIBRARY FUND.....	



— 97 —	
PAIRO FUND	
Created in 1931 by Richard E. Pairo, by devise and bequest, to be used for athletics	130,626.63
SCHOOL OF ENGINEERING BUILDING FUND	
Created in 1946 by Mr. and Mrs. Charles H. Tompkins, to be used toward the erection of a School of Engineering Building	131,164.48
SCHOOL OF MEDICINE BUILDING FUND	
Created in 1945 by various donors, to be used toward the erection of a School of Medicine building	1,817.02
WOMEN'S ACTIVITIES BUILDING FUND	
Created in 1939 by various donors to erect a women's activities building	5,228.46
WOMEN'S BOARD GIFT SHOP EQUIPMENT FUND	
Gift of the Women's Board of The George Washington University to purchase equipment for the Gift Shop	79.17

#### RESERVE FOR PROTECTION OF INVESTMENTS OF CONSOLIDATED PLANT FUNDS

Created from the income of Consolidated Plant Funds Investments, and gains arising from the sale of Consolidated Plant Funds Investments	6,068.08
--	----------







THE  
GEORGE  
WASHINGTON  
UNIVERSITY

SUMMARIES OF  
DOCTORAL DISSERTATIONS

1949 and 1950

SUMMARIES OF  
DOCTORAL DISSERTATIONS

1949 AND 1950

WASHINGTON, D. C.

PUBLISHED IN MICROFORM

BY THE UNIVERSITY



DOCTORAL DISSERTATIONS  
SUMMARIES OF

1949 and 1950



THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

---

SUMMARIES OF  
DOCTORAL DISSERTATIONS

1949 and 1950

---

WASHINGTON, D. C.

PUBLISHED IN MCMLI

BY THE UNIVERSITY



THE  
GEORGE  
WASHINGTON  
UNIVERSITY  
BULLETIN

---

DOCTORAL DISSERTATIONS  
SUMMARIES OF

1950 and 1951

---

WASHINGTON, D. C.

PUBLISHED IN MCMLI

BY THE UNIVERSITY



#### PREFATORY NOTE

This number of the University BULLETIN contains summaries of the dissertations which have been accepted during 1949 and 1950, inclusive, in partial satisfaction of the requirements for the degrees of Doctor of Philosophy, Doctor of Juridical Science, and Doctor of Education at The George Washington University. The original dissertations are filed in the University Library, where they may be consulted by students interested in examining the complete texts.

#### AVAILABILITY OF DISSERTATIONS

Dissertations listed in this and earlier issues may be ordered copied at cost by the non-profit Bibliofilm Service, care U. S. Department of Agriculture Library, Washington 25, D. C., in bibliofilm or photoprint form.



#### PREPARATORY NOTE

The number of the University Bulletin contains summaries of the dissertations which have been accepted during 1927 and 1928, inclusive, in partial satisfaction of the requirements for the degrees of Doctor of Philosophy, Doctor of Juridical Science and Doctor of Education at The George Washington University. The original dissertations are filed in the University Library, where they may be consulted by students interested in examining the complete texts.

#### AVAILABILITY OF DISSERTATIONS

Dissertations listed in this and earlier issues may be ordered copied at cost by the non-profit Bibliographic Service, care U. S. Department of Agriculture Library, Washington 25, D. C., in bibliofilm or photostatic form.



# CONTENTS

## DOCTOR OF PHILOSOPHY

	Page
JOSEPH DANIEL COKER Economics of Strategic Target Selection (February 22, 1949) . . .	3
MARY BARBARA MILLS A Study of Some Chemical Interrelationships of Ascorbic Acid, Dehydroascorbic Acid, and Diketogulonic Acid, with a Method for their Determination in Plant and Animal Tissue (February 22, 1949) . . . . .	11
MARY MITCHELL ALEXANDER The Immune Response of Man to <i>Pasteurella tularensis</i> (June 1, 1949) . . . . .	17
KENNETH WARD CROSBY The Diplomacy of the United States in Relation to the War of the Pacific, 1879-84 (June 1, 1949) . . . . .	21
LOUIS JOSEPH PECORA Electrocardiographic Changes in Rats on Thiamine Deficient Diets (June 1, 1949) . . . . .	33
BENJAMIN M. AXILROD The Theory of the Triple-Dipole Interaction (November 11, 1949) . . . . .	40
JAMES HAROLD COBERLY The Growth of Nationalism in American Literature, 1800 to 1815 (November 11, 1949) . . . . .	50
HABEEB BACCHUS Functional Activity of the Zones of the Adrenal Cortex as Indi- cated by Asteroid and Ascorbic Acid Histochemistry (Feb- ruary 22, 1950) . . . . .	59
DANIEL LOUIS REVERDIN Electron Optical Exploration of Space Charge in a Cut-Off Magnetron (February 22, 1950) . . . . .	63
HAROLD FRIEDLANDER Studies in Experimental Infections of Albino Rats and Mice (May 31, 1950) . . . . .	67



JACK LONDON RADOMSKI The Metabolism and Pharmacological Actions of Lithium (May 31, 1950) .....	74
WAYNE DAVID RASMUSSEN United States Plant Explorers in South America During the Nineteenth Century (May 1, 1950) .....	79
LEO ROBERT GOLDBAUM Studies on the Binding of Barbiturates to Proteins and Its Possible Relation to Their Disposition and Action in Animals (November 11, 1950) .....	88
JAMES THOMAS HICKS The Relationship of Skeletal Muscle Tone to Carotid Blood Pressure (November 11, 1950) .....	96
MERRIAM ARTHUR JONES An Investigation of the Reaction of Nitrosyl Chloride with 1- and 2-Pentene (November 11, 1950) .....	106
WILLIAM ELIAS POEL Physiologic Effects of the Tumor-Necrotizing Bacterial Poly- saccharide of Shear (November 11, 1950) .....	112
EUGENE WORTHINGTON RICE A Study of the Metabolism of D (—) Arabinose in the Rabbit (November 11, 1950) .....	121

## DOCTOR OF JURIDICAL SCIENCE

JOHN BENJAMIN OLVERSON The Clifford Regulations: a Case Study in Administrative Legislation (June 1, 1949) .....	127
--	-----

## DOCTOR OF EDUCATION

JOHN FREDERICK BROUGH The Program of the Occupational Information and Guidance Service, United States Office of Education, 1938-1948 (June 1, 1949) .....	135
FRANCES HOLLIDAY The Teaching of Methods in the Preservice Education of Ele- mentary Teachers (November 11, 1949) .....	143



WILLIAM SAMUEL RUMBOUGH Management of the High School Principal's Office (November 11, 1949).....	149
HOWARD ODIN JOHNSON The Development of More Effective Methods of Training Electronic Technicians in the Navy (February 22, 1950).....	157
JAMES HERRICK HALL Criteria for the Administration of Library Service in Christian Education in the Independent Autonomous Church at the Local Level (May 31, 1950).....	163
HAROLD MAURICE WILSON Management Planning in Secondary Schools (May 31, 1950)...	175
RALPH FREDERICK WILLIAM BRIMLEY The Management of Elementary Schools (November 11, 1950)	184
RALPH CALVIN GEIGLE The Relative Efforts of the States to Support Public Education (November 11, 1950).....	193



- WILLIAM SAMUEL ROBINSON  
Management of the High School Principals' Club (November  
1911-1912) 149
- HOWARD OWEN JOHNSON  
The Development of More Effective Methods of Training  
Educational Leaders in the Navy (October 1912) 157
- JAMES HARRICK HALL  
Criteria for the Administration of Library Service in Christian  
Schools in the International Association of Christian  
Schools (June 1913) 169
- EDWARD ALFRED WILSON  
Management Planning in Secondary Schools (July 1913) 175
- WILLIAM PATRICK WILLIAMSON  
The Management of Elementary Schools (November 11, 1913) 184
- JOHN LUTHER GUNN  
The Relative Efforts of the State in Support of Public Education  
(November 11, 1913) 193
- EDWARD ALFRED WILSON  
The Relative Efforts of the State in Support of Public Education  
(November 11, 1913) 193
- EDWARD ALFRED WILSON  
The Relative Efforts of the State in Support of Public Education  
(November 11, 1913) 193
- EDWARD ALFRED WILSON  
The Relative Efforts of the State in Support of Public Education  
(November 11, 1913) 193

DEPARTMENT OF EDUCATION

- JOHN BRADLEY GUNN  
The Effect of the State in Support of Public Education  
(November 11, 1913) 193

DEPARTMENT OF EDUCATION

- JOHN BRADLEY GUNN  
The Effect of the State in Support of Public Education  
(November 11, 1913) 193
- JOHN BRADLEY GUNN  
The Effect of the State in Support of Public Education  
(November 11, 1913) 193
- JOHN BRADLEY GUNN  
The Effect of the State in Support of Public Education  
(November 11, 1913) 193



## ECONOMICS OF STRATEGIC TARGET SELECTION

by JOSEPH DANIEL CHAMBERLAIN

In any modern industrial country, a vast and complex industrial system has been developed to produce the goods and services demanded by the population during peace and war. An analysis of the flow of output from the various parts of this industrial system reveals the dynamic character, as well as the profound interdependence of industrial activities, and the critical interdependence of the various stages of production. In studying the flow of output in a dynamic economy, there is of the essence. Particularly during wartime it is almost impossible to separate the economics of the home front.

The flow of output through the industrial plant has to be continuously interrupted by many causes including labor strikes, material shortages, etc.

## SUMMARIES OF DISSERTATIONS SUBMITTED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

1949 and 1950

During the past few years, the study of economic warfare has become a subject of increasing importance. Another type of economic warfare which has been developed in the recent past is direct intervention with sabotage to cause disruption in defense activities and transport facilities. For example, the French employed this type of economic warfare very successfully in their wars (beginning in 1914) with the Axis in North Africa, and the northern armies conducted sabotage against the South during the American Civil War. Aircraft were first used in this type of economic warfare in 1914, but on a very small scale. Military writers have stressed the potential importance of aircraft in the recent past, before World War I. Before World War II there appeared to be no serious air economic warfare very little mention of direct intervention with production under an enemy country. In fact, it was not until after air power had been developed to the point at which it could pose a serious threat to an enemy's home front, that the economic value of this type of economic warfare became fully and generally appreciated.

There are many points in an enemy war economy at which air power can be applied in order to interrupt the flow of output. There are

1. The flow of output from the various parts of the industrial system.



SUMMARIES OF DISSERTATIONS  
SUBMITTED FOR  
THE DEGREE OF DOCTOR OF PHILOSOPHY  
1949 and 1950



## ECONOMICS OF STRATEGIC TARGET SELECTION

by JOSEPH DANIEL COKER\*

In any modern industrial country, a vast and complex industrial structure has been developed to produce the goods and services demanded by its inhabitants during peace and war. An analysis of the flow of output from the various parts of this industrial structure reveals the dynamic character, as well as the profound complexities of industrial relationships and the critical interdependence of the various stages of production. In analyzing the flow of output in a dynamic economy, time is of the essence. Particularly during wartime it is almost impossible to exaggerate the importance of the time factor.

The flow of output through the industrial pipe line is occasionally interrupted by many causes, including labor strikes, material shortages resulting from temporary failures of the self-adjusting mechanisms of the economy, and physical factors, such as earthquakes, storms, fire, explosions, malicious damage, and acts of war.

Intentional interference with production in an enemy country is known as economic warfare. The type of economic warfare which has received most attention from economists is the blockade, which also was the most effective type during the period from the Napoleonic wars to the end of World War I. During World War I other measures were developed to supplement the blockade by further limiting the trade between belligerents and neutrals. Another type of economic warfare which has been practiced to some extent for a long time is direct interference with production by raids designed to destroy factories and transport facilities. For example, the French employed this type of economic warfare very successfully in their wars (beginning in 1830) with the Arabs in North Africa, and the northern armies similarly employed it against the South during the American Civil War. Aircraft were first used in this type of economic warfare in 1914, but on a very small scale. Military writers freely predicted the potential importance of aircraft in this respect even before World War I. But before World War II there appeared in the literature on economic warfare very little mention of direct interference with production within an enemy country. In fact, it was not until after air power had been developed to the point at which it could pose a serious threat to an enemy's basic war supporting economy that the potentialities of this type of economic warfare became fully and generally appreciated.

There are many points in an enemy war economy at which air power can be applied in order to interrupt the flow of output. There are

\* A.B. 1935, A.M. 1937, The George Washington University; Ph.D. conferred February 22, 1949.



literally thousands of plants and other facilities in any large industrial nation against which air power might be so used; but it is inconceivable that any country, even in the atomic age, could mount an air offensive adequate for the destruction of all the capital equipment in another large industrial country. For this reason and because attacks against certain plants would affect the enemy economy more adversely than would attacks against others, it is very important in time of war to determine precisely the facilities against which air power can be used most effectively. The solution of this problem requires analyses of the economic vulnerability of the enemy war economy to attacks against various particular plants and groups of plants, the destruction of which is within the capabilities of available air power. Such analyses do not include the analysis of military weaknesses or the vulnerability of countries to attacks against their military forces. Nor do they include the analysis of psychological weaknesses, or the vulnerability of countries to psychological warfare. They do include the analysis of economic weaknesses and the vulnerability of countries to actions designed to reduce their economic war potential.

While the principal use of economic vulnerability analysis is in the selection of strategic targets\* for limited bombing means (a short-run problem), it also may be used in determination of requirements for bombing programs designed to produce specified results and in comparisons of the relative merits of proposed weapons, bases, and long-range strategic plans. Two widely divergent basic approaches to strategic target selection will be considered briefly. Each is to be treated as a theoretical extreme—not as a practical approach. One of these approaches involves a search for an Achilles heel in the enemy war economy. The object of the search must be so small and vulnerable that it can be destroyed at small cost and so significant that its destruction will produce a decisive or at least a very substantial reduction in some major component of enemy military strength. The second approach is the approach of the "classical" economist (a term applied here to mean the economist who minimizes the significance of economic friction). Under the assumption that, when a plant is destroyed, adjustments involving the flow of capital, labor, and management will be made quickly, it may be argued that acceptable substitutes will be promptly forthcoming and that the only effect of the destruction of one plant is some small diminution of total output. Under this theory, the conclusion is reached that the optimum targets are those plants against which attacks can effect a maximum reduction in economic productivity, regardless of type.

It is obvious that the essential difference in the two approaches lies in the assumptions concerning economic friction. The "classical" approach

\* Strategic targets are those targets attacked by an air force in carrying out its strategic function which is the reduction of the enemy's economic war potential.



is based on the assumption of a total absence of economic friction, whereas the Achilles heel approach is based on the presence of economic friction of the highest order. The assumptions of neither approach are in conformity with the conditions of reality in any nation. Therefore, neither of these extreme approaches is adequate for practical application. The approach that should be followed in any case lies somewhere between these two extremes; just where depends upon a number of factors. Included among these are the degree of flexibility of the enemy economy, the nature of the strategic objective, the importance of the time factors, the quantity and quality of available bombing means, the availability of economic intelligence concerning the enemy, and postwar economic considerations. The optimum approach is that which is as close to the Achilles heel approach as these factors will safely permit.

In each case the relative value of an interdiction\* program varies with the productivity of the program and inversely, with the cost of the program.

The productivity of interdiction is measured in terms of the accomplishment of the strategic objectives, i.e., certain reductions in economic war potential. The productivity of an interdiction program designed to reduce production of any product during any given period varies directly with the essentiality of production during this period and also with the effectiveness of the interdiction program (in terms of the percentage of curtailment).

The essentiality of production of any product during any period depends upon the essentiality of new supplies of the product and upon the extent to which the new supplies can be obtained during the period of analysis from sources other than production (such as imports, reserves, repair, and salvage). While the essentiality of new supplies is basically a military criterion, it is analytically comparable to the concept of consumers' preference and, as such, may be regarded as reflecting the quantitative importance of the use of any material or product for military purposes. But the essentiality of new supplies depends not only upon the military importance of the use for which they were intended; it depends also upon closeness and quantities of substitutes.

The effectiveness of an interdiction program varies directly with the percentage of capacity denied to the enemy and with the ratio of the length of the actual interdiction period to the length of the period of analysis; except that the interdiction must cut through the cushion of non-essential capacity before it becomes effective at all.

In the cases of multiple-industry interdiction programs, productivity is not simply equal to the sum of the productivities of independent stop-

\* The infinitive "to interdict" is used to mean to prevent through strategic attack. Interdiction of production or transport means a stoppage or reduction of production or transportation as a result of strategic attack.



pages in all industries involved. The essentiality of production in any industry depends in varying degrees upon the status of other industries. Perhaps the best solution to the problem of interdependence is to consider all industrial categories (involved in an interdiction program) one at a time (in any desired order) and to evaluate the essentiality of production and the effectiveness of interdiction on the basis of anticipated results in previously considered, but not subsequently considered, industries.

It will be remembered that in determining the relative values of interdiction programs, one of the principal factors to be considered is the cost of interdiction (the other being productivity, which has just been discussed). While costs may be variously defined, it appears that for purposes of evaluating interdiction programs it is adequate to determine costs in terms of tons of bombs required, with such adjustments as appear necessary for differences in distance from base to target. The cost of an interdiction program will, of course, be the sum of the costs of maintaining the required reduction in capacity at all plants involved. The cost of maintaining the required reduction in capacity in each plant during a given period is equal to the cost of each attack multiplied by the required number of attacks against that plant during that period.

The cost of each attack against any plant varies directly with the bomb tonnage which must be dispatched from the base in order to achieve the required reduction in capacity and inversely with the percentage of the aircraft's normal bomb-load that may be carried from base to the target. The bomb tonnage which must be dispatched depends upon the tonnage that must be released over the target and the percentage of planes dispatched that will reach the target. In turn, the tonnage that must be released over the target depends upon the appropriate bombing accuracy, the pattern of bomb distribution, the size of the target area, the level of damage required, the functional vulnerability of the plant, the physical vulnerability of its structures and equipment and the probability of success demanded.

The number of attacks that are required in order to maintain a stated reduction in capacity during a given period varies directly with the length of the period and inversely with the length of the time interval between attacks. The frequency of attacks depends largely upon the resilience or recuperability of the plant; but it also depends upon the level of damage effected in each attack. Any given reduction in productive capacity can be maintained by various combinations of levels of physical damage caused by each attack on the one hand and frequencies of attack on the other. Therefore, it is necessary to determine the most economic combination, i.e., that combination which will permit maintenance of the stated reduction in capacity at minimum cost.

As previously stated, the cost of an interdiction program is equal to



the sum of the costs of maintaining given reductions in capacity of all the plants attacked. But the problem arises as to how much reduction in capacity should be effected in each plant of the industry involved. Inasmuch as the unit cost of reductions in capacity varies from plant to plant, it is necessary (in order that the reduction in capacity be effected at minimum cost) that the distribution of the reduction among the various plants be made in such a way as to equalize the marginal cost of unit reductions in all plants that are to be attacked.

The cost of a single interdiction program involving two or more industries may be less than the sum of the cost of individual programs (each of which involves one of the same industries) for two independent reasons. First, there may be reductions in costs because certain plants serve two or more industries. Second, targets in two or more industries may be so situated that both or all may be destroyed in a single attack, at little more than the cost of destroying any one.

Both a principle of increasing returns and a principle of increasing costs are usually applicable to marginal increments of interdiction. The relationship between the two will depend upon both qualitative and quantitative aspects of use patterns and upon patterns of industrial concentration and physical vulnerability. In any event, the relationship between the marginal productivity and marginal cost curves will determine the optimum level of interdiction.

The possible economic interdiction programs are so numerous as to make it impossible to make a careful, detailed analysis and comparison of all of them. It will be necessary to eliminate most of them from detailed consideration on the basis of simple preliminary examinations. For example, an industry may be summarily rejected as a target system if its product has little importance from the standpoint of a war economy or if acceptable substitutes are available in adequate quantities. Even if the importance is great and even if acceptable substitutes are unavailable in adequate quantities, the industry may be rejected as a target system if adequate supplies can be obtained from sources other than production. Some industries may be rejected because of insufficient geographical concentration or because an insufficient percentage of the industry is within the radii of action of attacking forces. A large cushion of non-essential capacity frequently could be an adequate basis for rejection of an important industry as a target system, but usually cushion must be considered in relation to other factors. In some cases, industries may be rejected because of insufficient physical vulnerability or because of too great resilience or recuperability. Other target systems which pass these superficial tests must be subjected to more detailed productivity and cost analyses.

The procedure in target selection may well vary with the nature of the objective. If a target system is to be selected and attacked in order



to achieve a specific and limited objective which appears to require only a portion of available bombing means, the first step might be an enumeration of alternate sets of conditions which reasonably can be expected to bring about the accomplishment of the objective. The next step might be the selection of the various target systems against which attacks appear to be relatively efficient means of creating each set of conditions on the basis of superficial consideration of the various factors affecting the productivity and cost of interdiction. The third step might be the determination of the percentage by which the capacity of each targetable installation in each target system must be reduced in order to create the necessary conditions for achievement of the objective. The fourth step might involve the estimation of the cost of effecting the required reduction in capacity in each plant in each target system. The final step then would be the comparison of the total costs of the required degrees of interdiction in the various target systems and the selection of that system against which the necessary degree of interdiction could be achieved at minimum cost.

If a target system is to be selected for an attack program designed to achieve a broad general objective, the procedure to be followed might be somewhat different from that suggested in the preceding paragraph, primarily because it may be assumed that while available bombing means may be more than adequate for a specific limited objective, all available means may be employed in the furtherance of a broad general objective. In the latter case, the first step might be the selection of the various target systems which appear reasonably profitable on the basis of superficial consideration of the various factors affecting the productivity and cost of interdiction in the light of the pertinent objective and the quantity and quality of the available bombing means. The second step might be the determination of the percentage by which capacity can be reduced in each target system by employment of the available bombing means. The third step might involve the evaluation of the productivity of the degree of interdiction in each of the various target systems thus determined to be procurable with the available means. The fourth and final step in the procedure would be a comparison of the productivities of achievable levels of interdiction in the various target systems and selection of that system against which an attack program with the means available would be most productive.

The theory presented in this dissertation is based largely on the experience of the Allies during World War II in their strategic bombardment of Germany and Japan. The data collected by the United States Bombing Survey in Germany and Japan provide both a foundation for the theory and material for testing its applicability. While no rigorous application of the theory to the facts of wartime Germany and Japan has been attempted, more superficial application has led to certain fairly



definite conclusions concerning the economic vulnerabilities of Germany and Japan during the past war.

It appears that the most menacing of Germany's capabilities against the Allies and their strategic air forces were most vulnerable to Allied attacks against Germany's liquid fuel, and particularly its synthetic oil facilities. These capabilities were also highly vulnerable to attacks upon facilities which produced certain types of aircraft components.

The basic war-supporting economy of Germany was most vulnerable to a carefully planned transportation interdiction program with emphasis on the paralysis of rail transport but with due consideration to the necessity for blocking traffic on the more important inland waterways.

While Japan possessed no particularly menacing capabilities against the Allied countries per se, it appears that the most menacing of Japan's capabilities against the United States strategic air effort consisted of its combat aircraft and anti-aircraft armament. The highly concentrated Japanese aircraft engine and propeller industries represented the two strategic target systems, against which interdiction programs offered the greatest promise of limiting the Japanese supply and quality of combat aircraft. The equally highly concentrated electronics tube industry represented the Achilles heel of the Japanese anti-aircraft armament position.

As for the basic war-supporting economy, transportation even to a greater degree than in Germany and probably to a greater degree than in any other industrial country in the world, represented the outstanding economic vulnerability of Japan.

In arriving at these conclusions concerning the critical economic vulnerabilities of Germany and Japan primary consideration was given to the objective of accomplishing the mission of the armed forces in general, and the air forces in particular, at minimum cost.

It is noteworthy, however, that broader, including postwar, considerations of economy lend support to these conclusions, particularly in so far as they relate to the critical points of vulnerability of the basic war-supporting German and Japanese economies. If strategic attacks against Germany and Japan had been limited to such target systems as liquid fuels, aircraft engines, electronics tubes, and transportation, only a relatively small fraction of the physical destruction actually effected would have been necessary, the postwar rehabilitation burden upon the United States would have been substantially lighter, and the recovery of the German and Japanese economies would have been as rapid as their former enemies chose to tolerate.

In conclusion, it may be noted that economic vulnerability theory falls in that category of contemporary economic theory which is generally described as economics of war. More particularly, it is within that portion of war economics that is concerned with economic warfare. In



fact, in its broad sense, economic vulnerability theory may be viewed as embracing the entire field of economic warfare; for essentially the same theory as that presented above, after appropriate modification and substitution of factors, would be applicable to the evaluation and selection of programs of preclusive buying, blockade, boycott, export control, etc. In this sense, economic vulnerability theory may be regarded as a theory of international economic relations under conditions of war.

Economists who have concerned themselves with such problems as the elimination of unemployment and the maximization of production may be inclined to view as a perversion of economic science any efforts to apply it to the production of industrial and economic chaos. However, it is submitted that inasmuch as military victory in future wars may be even more dependent upon the prompt and economic use of available bombing resources than upon the further expansion of output, it is the responsibility of the economist to develop not only the constructive, but also the destructive applications of the science.



# A STUDY OF SOME CHEMICAL INTERRELATIONSHIPS OF ASCORBIC ACID, DEHYDROASCORBIC ACID, AND DIKETOGULONIC ACID, WITH A METHOD FOR THEIR DETERMINATION IN PLANT AND ANIMAL TISSUE

by MARY BARBARA MILLS\*

The search for a method to analyze for ascorbic acid, dehydroascorbic acid, and diketogulonic acid on the same tissue filtrate by the coupling reaction of the latter two compounds with 2,4-dinitrophenylhydrazine began with consideration of a report of Penney and Zilva that the rate of coupling of dehydroascorbic acid and diketogulonic acid with dinitrophenylhydrazine are sufficiently different to allow analytical separation on this basis. However, the different conditions under which the coupling is carried out and the color developed in the Roe-Kuether and Roe-Oesterling methods does not allow the wide separation in coupling rates. Inasmuch as the color in the Roe methods is more specific, efforts to find a differential method based on the rates of coupling by altering the conditions were abandoned.

The easy reduction of dehydroascorbic acid to ascorbic acid by mild reductants might be the basis for differentiation, inasmuch as ascorbic acid does not couple with 2,4-dinitrophenylhydrazine in the time used for this step of the method. Diketogulonic acid, on the other hand, is not reducible back to ascorbic acid by these mild agents and will remain in a form which couples with the dinitrophenylhydrazine reagent after reduction. The possibility of a selective reduction was investigated.

The reducing agent of choice would be one which would act in a short period of time at ordinary temperature, and could be removed after the reduction to allow coupling with 2,4-dinitrophenylhydrazine to proceed without additional agents present in the tube to change the amount of color production. This ideal agent must also be removed from the reduced solution to allow oxidation and enable one to attain a value for the combined ascorbic, dehydroascorbic, and diketogulonic acids present in the original filtrate. Thiourea, stannous chloride, sodium sulfide, and hydrogen sulfide were tested at a number of concentrations, times of exposure, and temperatures. Hydrogen sulfide gas bubbled through the solution for fifteen minutes at room temperature was most efficient as a reducing agent, and filled all the requirements mentioned.

The optimum pH for the reduction of dehydroascorbic acid by hydrogen sulfide was investigated. Various acids including metaphosphoric, trichloroacetic, and hydrochloric were used, and hydrogen sulfide reduction was carried out at pH values from 0.95 to 7.0. The results obtained

\* B.S. 1940, University of Pittsburgh; M.S. 1941, The George Washington University; Ph.D. conferred February 22, 1949.



in this series indicated that hydrogen sulfide gas bubbled through the solution in a standard manner for fifteen minutes would completely reduce the dehydroascorbic acid at all pH values in the range from 1.20 to 5.00. Metaphosphoric acid in 4 and 5 per cent concentrations gave satisfactory pH ranges for maximum reduction in fifteen minutes, and the addition of 0.5 per cent stannous chloride did not change this result. The deproteinizing mixture of 5 per cent metaphosphoric acid with 0.5 per cent stannous chloride included to protect the ascorbic acid from oxidation provided a satisfactory medium for the quantitative reduction of dehydroascorbic acid.

Diketogulonic acid was known to be unstable in the presence of hydrogen sulfide from the work of Penney and Zilva. (42) Conditions which influenced the stability of diketogulonic acid in the presence of hydrogen sulfide were investigated; various pH values, times of exposure to the gas, and temperatures at which exposure took place were tried; the results indicated that diketogulonic acid shows the greatest stability in the presence of hydrogen sulfide when the pH was below 1.30 and the temperature in the normal range. With fifteen minutes exposure to the gas under these conditions, less than 3 per cent of the diketogulonic acid was changed to a form which would not couple with 2,4-dinitrophenylhydrazine. Since the 5 per cent metaphosphoric acid-0.5 per cent stannous chloride has a pH of 1.25-1.30, this was acceptable both for protection of diketogulonic acid from hydrogen sulfide destruction as well as for allowing complete reduction of dehydroascorbic acid during fifteen minutes exposure to the gas.

Because of the more rapid initial coupling of the diketogulonic acid with the dinitrophenylhydrazine compared with that of dehydroascorbic acid, the exact rates of coupling of these two ascorbic acid derivatives with this reagent were determined. Comparison of these curves showed diketogulonic acid completed its reaction with 2,4-dinitrophenylhydrazine within the first five hours at 37°C., while dehydroascorbic acid continued to couple beyond the tenth hour. However, the amount of coupling attained by the sixth hour was 95 per cent of that reached at twenty-four hours. Investigation of ascorbic acid incubated at 37°C. with 2,4-dinitrophenylhydrazine showed that this material began to couple with the reagent after eight hours, which would make differentiation from dehydroascorbic and diketogulonic acids impossible after this time. To avoid this error from ascorbic acid, the six hour coupling period was adopted, since the difference in amount of coupling by dehydroascorbic acid was only 5 per cent less than that of diketogulonic acid at that time, and this constant amount could be allowed for when the amount of diketogulonic acid was appreciable.

The methods of extraction which would best protect the ascorbic, dehydroascorbic, and diketogulonic acids were carefully investigated.



The thiourea used in the Roe-Oesterling method was abandoned in favor of 0.5 per cent stannous chloride, since thiourea would not protect ascorbic acid from oxidation by oxyhemoglobin present in animal tissues. Half a per cent stannous chloride allowed less than 1 per cent oxidation of ascorbic acid in pure solution.

The spontaneous change of dehydroascorbic acid to diketogulonic acid was studied through a series of pH values and in the presence of various ions, and both high and low hydrogen ion concentrations were found to accelerate diketogulonic acid formation. Other ions were also shown to accelerate this conversion, including chloride and phosphate ions. The various methods of oxidation of ascorbic acid were shown to produce some diketogulonic acid along with the desired dehydroascorbic acid. Minimal diketogulonic formation was observed when potassium iodate was used for oxidation, and this agent was employed when pure dehydroascorbic acid was desired.

Diketogulonic acid was known to be unstable in the presence of hydrogen sulfide. This change in diketogulonic acid to a form not combining with 2,4-dinitrophenylhydrazine was found to be greatly increased in the presence of 1 per cent thiourea and 1.5 per cent stannous chloride. The destruction in the presence of stannous chloride was not due to the chloride ion, since 0.5 per cent stannous chloride plus sodium chloride did not show this increased destruction. During hydrogen sulfide reduction, not more than 0.5 per cent stannous chloride can be present if the diketogulonic acid is to remain unchanged.

The specificity of the colors produced with the 2,4-dinitrophenylhydrazine derivatives of dehydroascorbic acid by 85 per cent sulfuric acid and glacial acetic acid were tested next, in order to determine whether the suggestion of Bolomey and Kemmerer of substituting glacial acetic acid could be made use of. Derivatives of glucose, fructose, arabinose, pyruvic acid, and reductones with 2,4-dinitrophenylhydrazine were prepared, and the color developed with sulfuric and acetic acids. In all cases the color interference from these non-ascorbic acid substances proved to be greater with acetic acid than with sulfuric acid, when the spectral transmittance curves were obtained.

Orange juice filtrates, oxidized several ways, were tested as to color development with acetic and sulfuric acids, and the spectrophotometric transmittance curves read with the sulfuric acid developed color in all cases approximated the dehydroascorbic acid standard curve more closely than the acetic acid developed color matched the corresponding standard curve. The specificity of the color formed from the dehydroascorbic acid derivative of 2,4-dinitrophenylhydrazine with sulfuric acid is much greater than when the color is developed with acetic acid. The value obtained with orange juice in the latter case is a composite one, including ascorbic acid and interfering substances. The percentage sulfuric acid



used to develop the color, and the 540 m $\mu$  filter used to read the color in the Roe methods are both very close to optimum conditions for color development and color comparison.

On the basis of these experimental data, a method was devised for the analysis of ascorbic acid, dehydroascorbic acid, and diketogulonic acid in the same filtrate. The material was extracted with 5 per cent metaphosphoric acid-0.5 per cent stannous chloride solution, and a portion of this filtered extract was coupled *per se* with 2,4-dinitrophenylhydrazine to give the value for dehydroascorbic acid plus diketogulonic acid in the "original" solution. The remaining portion of the extract was placed in a large test tube and hydrogen sulfide was bubbled in by a sintered glass filter stick for fifteen minutes. This hydrogen sulfide treated solution was then divided into two portions. One per cent of powdered thiourea was added to one portion, dissolved, and then the solution was filtered to remove the stannous sulfide. The excess hydrogen sulfide was cleared from the solution by a stream of carbon dioxide, and the solution was coupled with dinitrophenylhydrazine to obtain the value for the unreduced diketogulonic acid in the original tissue on this "reduced" filtrate. The second portion of the hydrogen sulfide reduced solution was filtered free of stannous sulfide without addition of thiourea, and freed of hydrogen sulfide by drawing air through the solution for five minutes. This solution was then oxidized with bromine vapor, cleared of excess bromine by aeration, and coupled with dinitrophenylhydrazine after the addition of 1 per cent powdered thiourea. This gives a total value of ascorbic acid, dehydroascorbic acid, and diketogulonic acid in an "oxidized" solution.

Testing this method on pure solutions of a single compound and on mixtures of the three components showed excellent recoveries of each compound in the form in which it had been added. The method appeared quite satisfactory in pure solutions. When vegetable materials were extracted by the Waring blender and analyzed by this method, however, more of the oxidized ascorbic acid was found than had been anticipated, and the violent agitation of the solution by the Waring blender was investigated for its possible oxidative effect, and was found to cause a good deal of oxidation of ascorbic acid to dehydroascorbic acid. The use of the Waring blender was abandoned, and materials were extracted with sand in a mortar in subsequent analyses.

When the method was applied to animal tissues, the 0.5 per cent stannous chloride was found to be insufficient to prevent oxidation of ascorbic acid in the presence of oxyhemoglobin. Since this percentage of stannous chloride could not be exceeded during reduction with hydrogen sulfide if the diketogulonic acid was to be protected, the initial concentration of the stannous chloride was increased and then diluted with metaphosphoric acid to give the proper final concentration. The ascorbic



acid was found to be quite stable in the presence of oxyhemoglobin if 10 per cent stannous chloride in metaphosphoric acid was used for the initial extraction, and then diluted with 5 per cent metaphosphoric acid to a final concentration of 0.5 per cent.

With this modification in extraction no changes in the stability of ascorbic acid, dehydroascorbic acid, or diketogulonic acid were found from that observed in the 0.5 per cent stannous chloride. The method was not changed except for the introduction of this additional step in the extraction procedure.

Known amounts of ascorbic acid, dehydroascorbic acid, and diketogulonic acid were added to plant and animal materials, and excellent recoveries were obtained in all cases except dehydroascorbic acid added to blood. The latter addition resulted in some diketogulonic acid formation, and some loss of total. This was obtained repeatedly when the dehydroascorbic acid was added to blood before stannous chloride. It was therefore assumed to be a true effect of blood on this compound, and was noted for future metabolic investigation. Dehydroascorbic acid added to blood after the stannous chloride was recovered unchanged in the amounts added.

Normal guinea pigs were killed with nembutal and the tissues analyzed for their content of ascorbic, dehydroascorbic, and diketogulonic acids. Only very small amounts of the two oxidized forms of vitamin C were found; most of the ascorbic acid present in animal tissues is in the reduced state. The small amount of dehydroascorbic acid, and occasionally of diketogulonic acid present may be due to autolytic changes, or to oxidation on the cut surface of the tissue during sampling. The analysis of sufficient animals should establish a control value for this oxidized portion of the vitamin C which will serve as a normal in following the possible metabolism of ascorbic acid.

Plant tissues were next subjected to analysis by this method in an effort to test whether the procedure was reliable, and to determine the degree of oxidation of the ascorbic acid present in foods normally available. Market purchased fresh foods and canned, frozen, and dehydrated foods were analyzed. The results showed very little diketogulonic acid to be present in fresh foods, but some dehydroascorbic acid was usually present. Canned foods contained very little more of these oxidized products of ascorbic acid than did fresh foods, but frozen foods showed considerable oxidation except in samples which appeared to be in an excellent state of preservation. Dehydrated foods contained considerable diketogulonic acid and more dehydroascorbic acid than the other types of processed foods. This was especially true of the samples dessicated at elevated temperatures. Samples which had been processed under milder conditions at a more recent date were in as good a state of preservation as foods in the other classes analyzed.



The changes in the ascorbic acid fractions occurring during storage were tested in two different types of foodstuffs: orange juice where the acidity and natural protectants combine to make ascorbic acid most stable, and a slurry of white potato where the high pH and oxidative enzymes combine to greatly decrease the stability of the vitamin C. These two materials were stored in the refrigerator next to the freezing coils at 2°C., and aliquots were removed for analysis at varying intervals.

In the orange juice, the ascorbic acid was all present in the reduced state at the initial analysis. On the next analysis three days later a small amount of dehydroascorbic acid had been formed, and this amount gradually increased with the storage time. No diketogulonic acid was detected until the thirteenth day of storage, and then this amount increased until on the last day of analysis this fraction comprised the major percentage of the total. The sum of the three compounds remained remarkably constant for the first month of storage, so that although the state of the ascorbic acid had changed considerably by the twenty-eighth day of storage, the total amount of the three fractions was the same as on the day of extraction. By the thirty-eighth day the total had fallen off to 85 per cent of the original.

The potato slurry showed no ascorbic acid to be present on the initial analysis. Because of the pH and oxidative enzymes, all the ascorbic acid had been converted to dehydroascorbic acid, and a small amount of diketogulonic acid also had been formed during the extraction procedure. After six hours the amount of diketogulonic acid exceeded that of dehydroascorbic acid, and the remaining analyses showed this fraction continuing to increase at the expense of the dehydroascorbic acid. The total of these two compounds remained quite constant for about one week, and then it began to decrease. By the nineteenth day of storage less than 7 per cent of the original total could be accounted for in the slurry in the forms being analyzed.

The contrast between these two types of materials in storage illustrates at once the behavior of ascorbic acid and derivatives under different conditions of acidity, and the validity of the method used for measuring these two compounds in a complex mixture such as a plant extract. The fact that one component increases only as another decreases, and the total of the three remains constant is excellent evidence of the specificity and accuracy of the method developed here for the analysis of ascorbic, dehydroascorbic, and diketogulonic acids.



## THE IMMUNE RESPONSE OF MAN TO *Pasteurella tularensis*

by MARY MITCHELL ALEXANDER \*

It has long been known that recovery from an infection with *Pasteurella tularensis* results in an immunity which often prevents the occurrence of the disease upon subsequent exposure to this organism. With this knowledge, the prophylactic measure of vaccinating members of groups exposed to tularemia has been employed. Largely because of the lack of an adequate laboratory animal, a demonstration of the efficacy of this vaccination procedure has been experimentally difficult to demonstrate. Not only has the proof of the adequacy of vaccination presented difficulties, but also the proof of the value of the therapeutic use of immune serum.

Studies on man, when the opportunity was available, have contributed most of the knowledge concerning immunity in tularemia. There has been a controversy by workers in this field as to whether or not sera from immunized animals afforded any protection against infection. It has been demonstrated in a large number of cases, however, that immune serum is valuable in the treatment of the disease in man. It has also been shown that prophylactic vaccination, even though it does not always prevent the onset of disease, does significantly decrease the severity of the symptoms associated with the disease.

Previous to the present study, an antigen occurring in *Past. tularensis* was described which would react with antisera *in vitro*. It was later demonstrated that the level of antibody in sera of hyperimmunized animals, as determined by a serological technique employing this antigen, closely paralleled the protective capacity of the sera for white rats which were experimentally infected.

The present study was undertaken to assess the immune response of man to vaccination with, or recovery from an infection with *Past. tularensis*. For the determination of antibody and its reactivity the method of quantitative precipitation was chosen because it is the most precise method known, and because it gives more information concerning a serum than any other known method. This method has been demonstrably adequate for the description of antibody formed in man in response to a number of antigens, including those from the Pneumococcus and the Meningococcus.

The technique of carrying out the quantitative precipitin reaction was essentially the standard technique, except that it had been modified to be applicable to sera of low antibody content. Modifications included

\* B.S. 1939, Oklahoma Agricultural and Mechanical College; M.S. 1945, University of Michigan; Ph.D. conferred June 1, 1949.



the absorption of complement onto a forming egg albumin-anti-egg albumin precipitate rather than inactivation of complement with heat; an incubation period of from ten days to two weeks because of the slower rate of precipitation in sera of low antibody content; the use of large amounts of serum for each analysis, sometimes as many as 8 ml.; and the use of a colorimetric procedure, employing the use of the Folin-Ciocalteu phenol reagent for the determination of nitrogen instead of the more classical Kjeldahl nitrogen determination which is not sensitive enough to measure the small quantities of precipitable nitrogen encountered in human sera.

Precipitable antibody was measured in the antibody excess zone using various quantities of antigen sufficient to insure an antibody excess when a constant amount of antiserum was present. From the results of these determinations, the antibody-antigen ratio of each precipitate in the antibody excess zone was calculated. Heidelberger's theory and equation were applied to determine the amount of antibody, the ratio of antibody to antigen, and the total amount of antigen combined in the equivalence zone. These values were used in the comparison of sera from recovered and vaccinated individuals.

The antigen employed in these studies was the one previously mentioned. It was a phenol-soluble, water-soluble polysaccharide prepared by phenol extraction of acetone-extracted cells which had been grown in a liquid medium. The purification of the preparation consisted of three reprecipitations with ethyl alcohol. In the course of this study, three preparations were made by this method, two from the virulent strain, *Past. tularensis*, strain Schu, and one from the avirulent strain, *Past. tularensis*, strain 38. On serological analysis, employing a known positive goat serum in the quantitative precipitin technique, preparations from the two strains mentioned were found to be similar. This polysaccharide fraction of *Past. tularensis* is, therefore, probably not concerned with the relative virulence of the organism. From this knowledge, and the knowledge that no other chemical difference is known to exist in virulent and avirulent strains, it was suggested that the virulence of *Past. tularensis* may be a function of the physiology of the cell, rather than of a single component which can be isolated from it. It was further suggested that the technique of quantitative precipitation could serve as a tool in the study of other antigenic preparations from this organism.

Analyses of human sera included three from normal individuals, eleven from individuals who had received varying quantities of Foshay's vaccine, and sixteen from persons who had been recovered from an infection for various periods of time. Two of the recovered individuals suffered reinfections, and sera were obtained from them after the reinfections. A series of analyses was done on the serum from one



person at various stages during an infection, and while convalescent from the infection with *Past. tularensis*.

Inspection of the results of the analyses of sera from normal individuals who had never encountered the organism, either through vaccination or infection, revealed that there was no antibody present which was reactive with the polysaccharide antigen. The results of analyses on the sera of humans who had been vaccinated, or who had recovered from an infection with *Past. tularensis* demonstrated the following: (1) the absence of a correlation between the amount of vaccine administered and the antibody response following vaccination; (2) the lack of correlation between the time since recovery and the antibody level; (3) the occurrence of more antibody in the sera of humans after infection than after vaccination; and (4) the greater combining capacity for antigen, molecule for molecule, of antibody in sera from vaccinated individuals than from recovered individuals.

From results of analyses in the two cases of reinfection, it was found that there was an increase in the total amount of antigen combined per volume of serum after the reinfections, but a diminution in the amount of antibody present in that quantity of serum.

The serial analyses on a person with, and convalescent from an acute infection revealed an immune response greater than that observed in any other serum. This large amount of antibody, occurring one month after the onset of symptoms, is in contrast to the small quantity which was present one day after the administration of aureomycin had been discontinued.

Because certain of the individuals, both vaccinated with and recovered from an infection with *Past. tularensis*, were liable to exposure, certain deductions in regard to the value of antibody in the resistance of man to tularemia could be made. It was suggested that the immune response in man might better be determined by measuring the amount of antigen combined by a given quantity of antiserum, rather than by measuring the total quantity of antibody. A measurement of the antigen combined would reflect both the quantity, and the reactivity of the antibody with antigen. This conclusion was based primarily on the following evidence: (1) the occurrence of an amount of antigen combined in the sera of three vaccinated individuals, two of whom were exposed and demonstrably refractory to infection, which was similar to an amount found in the sera of three recovered persons, two of whom had escaped infection on exposure to the virulent microorganisms; (2) the finding that the serum from a reinfected person, two months after the reinfection occurred, did not contain as much antibody as in the previous analysis, but the antibody present reacted with more antigen; and (3) the demonstration by Foshay that the antibody level, assayed in terms of the milligrams of antigen combined, closely paralleled the protective



capacity of hyperimmune animal sera in experimental studies in which the white rat was used as an experimental animal.

From the conclusion that the amount of antigen combined by a unit volume of serum is an indication of the immune state of the person, it was suggested that a simple serological test which measured the amount of antigen combined by a given quantity of serum might serve as an adequate expression of the immune response of man to vaccination.

Because of the persistence of an amount of antibody not dependent on the length of time since infection in the serum of a recovered person as many as fourteen years following infection, and because of the nature of the disease, the theory of the persistence of immunity due to the residence of live antigen in the host's cells was proposed. This live antigen situated strategically in the tissues, could provoke the constant formation of immune globulin without inciting the disease.

From rat protection tests, it was demonstrated that hyperimmune goat serum was protective, but that after the serum had been absorbed with the polysaccharide antigen, the protective capacity was considerably lessened. It was also shown that the serum from vaccinated individuals contained some protective antibody, as evidenced by a lower mortality rate and a delay in death in experimentally infected white rats.



## THE DIPLOMACY OF THE UNITED STATES IN RELATION TO THE WAR OF THE PACIFIC, 1879-84

by KENNETH WARD CROSBY \*

### BOUNDARIES AND NITRATES

When Chile landed troops at Antofagasta on 14 February 1879 to "revindicate" her claim to territory in the Desert of Atacama on the Pacific coast of South America, she brought to a violent end a boundary controversy with Bolivia of nearly forty years' duration. The sanguinary War of the Pacific which followed between Chile and the allied republics of Peru and Bolivia ended five years later in complete success to Chilean arms and diplomacy, with the annexation of the entire Bolivian littoral and the Peruvian Province of Tarapacá, in addition to extended occupation of the Provinces of Tacna and Arica. European governments early manifested a readiness to intervene to safeguard investments of their citizens in the area, but were prevented from doing so effectively by the United States, which discouraged their efforts while seeking in vain during three administrations to restore peace through repeated offers of mediation.

Spain unwittingly laid the foundations for the War of the Pacific by failing to delimit clearly the boundaries within her colonial empire. But the boundary between Chile and Bolivia in the Desert of Atacama remained a matter of amiable indifference in both Santiago and La Paz, until President Manuel Bulnes of Chile advanced a claim to the twenty-third parallel in 1842 in the hope of discovering in this desolate region a source of public revenue such as Peru was realizing from her guano deposits farther up the coast in Tarapacá.

According to the best authorities the boundary should have been at Paposo at twenty-five degrees. Bolivia consequently protested the pretensions of Bulnes and took measures to exclude Chilean guano operations from the region. Periodic diplomatic exchanges failed to achieve a settlement until war appeared imminent in 1866. The activities of a Spanish fleet in the Pacific at this juncture, however, brought Chile, Bolivia, Peru, and Ecuador into an alliance for joint resistance.

This new relationship produced a Chile-Bolivian treaty the same year, which placed the boundary at twenty-four degrees and stipulated that each would share the export taxes on guano and minerals between the twenty-third and twenty-fifth parallels. Complications immediately arose with the discovery in this area of *caliche* beds (a nitrate which, like guano, is a rich fertilizer) near Antofagasta and of a rich lode of silver at Caracoles.

\* B.S. 1939, Wilmington College; A.M. 1940, Haverford College; Ph.D. conferred June 1, 1949.



Since Bolivia had neither the means nor the inclination to exploit these resources, the mendacious dictator, Mariano Melgarejo, granted a sweeping concession to the Antofagasta Railroad and Nitrate Company, organized in Valparaiso to exploit the *caliche* beds. Trouble soon developed because the treaty of 1866 failed to define clearly the nature of minerals: Bolivia undertook to tax the export of nitrate without sharing the proceeds. The treaty, therefore, only provided further issues for conflict.

Peru, meanwhile, became interested in the boundary between Chile and Bolivia on account of her own financial difficulties. Beginning in 1842 Peru had realized a princely income from the sale of guano in Europe, later supplemented by nitrate from *caliche* beds in Tarapacá. Through mismanagement, corruption, and an overly ambitious program of public works, however, her financial position had deteriorated until she faced bankruptcy in 1873. Intending to recoup her losses by nationalizing the production of nitrate, she wished to gain control of the operations at Antofagasta to have a monopoly of the product. She consequently signed a purportedly defensive alliance with Bolivia in 1873 to bolster resistance in La Paz to Chile's demands for revision of the treaty of 1866. The adhesion of Argentina to this secret alliance was sought, since she also had a boundary dispute with Chile in Patagonia. But the arrival at the critical moment of two new Chilean iron-clad war vessels rendered Peru's diplomacy abortive.

Bereft of Peruvian support, Bolivia signed a second treaty with Chile in 1874 which retained the boundary at twenty-four degrees but substituted for the joint-benefits clause a provision that no additional taxes should be levied on Chilean industries between the twenty-third and twenty-fifth parallels. On 14 February 1878, nevertheless, the current Bolivian dictator, Hilarión Daza, rashly imposed a tax of ten *centavos* on each *quintal* (one hundred pounds) of nitrate exported by the Chilean firm at Antofagasta. Despite every evidence that Chile would not submit, Daza decreed the sale of the property of the firm one year later to collect the arrears due under his tax. Chile forestalled him by the military occupation of Antofagasta on the day set for the foreclosure.

In the midst of military preparations to fulfill the obligations of the secret alliance of 1873, Peru commissioned a special envoy, José Antonio de Lavalle, to attempt mediation. Chile declared war on Peru on 5 April 1879, however, ostensibly because she refused to issue a categorical declaration of neutrality, thus renouncing the alliance. Actually, neither Peru nor Chile was loath to face a trial of strength to settle the issue of priority on the Pacific coast.

On paper, with double the population of Chile, the allies appeared the stronger, but Chile had the advantage of a more homogeneous population, a more stable government, a sounder economy, and, most impor-



tant, naval preponderance through her two new ironclad rams, the "Almirante Cochrane" and the "Blanco Encalada". Owing to the nature of the terrain, sea power was certain to be the deciding factor in the war.

#### MR. EVARTS BEARS AN OLIVE BRANCH

Even before the declaration of war foreign powers displayed a willingness to mediate the quarrel. In a conference with Chilean Foreign Minister Alejandro Fierro, United States Minister Thomas A. Osborn stated that his government would undoubtedly "lend its efforts to an amicable arrangement of the difficulties". The British Chargé d'Affaires, Drummond Hay, made a similar offer. And before the war was many months old, the British and the German governments made simultaneous overtures to Washington respecting joint mediation, which Secretary Evarts rejected. Similarly, direct offers by Ecuador and Colombia through ex-President Urbina and former Minister of Foreign Relations Dr. Pablo Arosemena, respectively, met with no encouragement from the belligerents.

The unauthorized attempt at mediation in July 1879 on the basis of the *status quo ante bellum* made by the minister to Bolivia, Judge S. Newton Pettis, was the first formal diplomatic effort of the United States. Complicated by the meddling of a bearer of State Department dispatches, Colonel Horace Fisher, the fruitless journey of Pettis to Santiago only aroused the suspicions of Chile toward his government.

On 21 May the Peruvian fleet drew first blood by sinking the "Esmeralda" at Iquique—a pyrrhic victory since one of Peru's two ironclads, the "Independencia", was lost on a rock in the engagement. For five months thereafter Admiral Miguel Grau held the Chileans at bay with the "Huascar", before losing his life when his vessel was captured by Chilean forces off Punto Angamos on 9 October 1879. This decisive battle gave Chile command of the sea and with it the freedom of movement essential to victory.

The Chileans immediately took the offensive, landing 13,000 troops in Tarapacá, where they defeated the allies at San Francisco, whence they marched overland to crush the enemy at Tacna and at Arica in June 1880. Thus Chile came early into control of the guano and nitrate resources of Peru, the exploitation of which furnished most of the funds for continuing the war.

These reverses produced revolutions in both allied countries. General Narcisco Camero replaced Daza as dictator of Bolivia and managed to remain in power after the rout at Tacna, although he struck no effective blow in the war thereafter. Peru found a leader of a different stamp in Nicolás de Piérola who assumed arbitrary powers on Christmas Day 1880 in order to galvanize his country into more effec-



tive resistance. Both dictators were promptly recognized by the United States.

Secretary Evarts directed his agents to forestall another movement for mediation by the European powers, aroused over neutral losses incidental to Chile's offensive, in the summer of 1880. In this connection an unauthorized visit to Santiago by Isaac P. Christiancy, minister to Peru, further offended the susceptibilities of Chile without accomplishing any good. The most ambitious peace effort of the United States emerged from Evarts' instructions, nevertheless, when delegations from all three belligerents assembled aboard the U. S. S. "Lackawanna", at Arica on 20 October 1880 for a conference under the mediation of their respective United States ministers.

The Conference of Arica was foredoomed through the failure of Minister Christiancy to inform Piérola that Chile would demand cession of Tarapacá as a *sine qua non* of peace. Further complications arose through Bolivia's having attended on the assurance of Minister Charles Adams that his government would offer arbitration in case direct negotiations broke down. Peru refused to cede Tarapacá, Chile rejected arbitration, and the conference accomplished nothing.

No additional effort toward peace occurred under Evarts. His negative policy of careful respect for belligerent rights and of discouraging European intervention, while offering United States mediation, was undoubtedly in the best tradition of his predecessors, but it was scarcely energetic enough to restore peace.

#### AWAITING A DECISION AT ARMS

Immediately after the Conference of Arica, Chile launched 24,000 troops under General Baquedano against Lima. On 13 January 1881 they stormed the outer Peruvian defenses at Chorrillos, then prepared to attack Piérola at Miraflores. Two days later the defenders were routed from this position despite a truce which the diplomatic corps had arranged for the discussion of peace terms. Having fled to the mountains, Piérola sent a communication to the diplomatic corps charging the Chileans with treachery in breaking the truce, thereby complicating the arrangement of peace, because Chile promptly refused to deal with him until he should disavow these charges.

Meanwhile, Lima was saved from pillage and arson by mobs of Peruvian soldiery and from almost certain sacking at the hands of the Chileans, whose troops would have been fired upon by this mob on entering the capital, had not a self-constituted "Urban Guard" of foreigners restored order prior to the Chilean occupation of the city.

Chile at once adopted a policy of heavy handed occupation, with Peru bearing the expenses until she should be willing to cede the rich Province of Tarapacá. Minister Christiancy early noted that nothing but



resolute intervention by the United States would prevent this result. In pursuit of her policy, Chile despoiled Peru of a great variety of public property, levied heavy contributions on private citizens, and, most important, systematized the exploitation of Peru's guano and nitrate resources. All this made the occupation actually profitable, saving the economy of Chile from probable collapse.

Europeans were interested in the disposal of Peru's resources since they held bonds worth some 35,000,000 pounds sterling secured by Peru's guano. Chile cleverly placated part of these creditors, principally British, by sharing one-half of the proceeds from the sale of one million tons of guano. But another group, largely French, including some English, German, and Italian creditors as well, proposed to furnish Peru the means to pay an indemnity instead of ceding territory, in exchange for a monopoly on the resources of Tarapacá until Peru's obligations were met. Agents of the *Crédit Industriel*, a French banking firm which would advance the money, sought the backing of the United States for this "Programme", to prevent objections on account of the Monroe Doctrine. Although refusing to commit the United States to the project, Secretary Evarts did not oppose it, while informing his agents about it in case a favorable opportunity developed to employ the plan. Minister Christiancy replied, however, that the proposal came too late—Chile would settle for nothing but territory unless compelled to do otherwise.

Although unsuccessful in arranging peace, Secretary Evarts and his agents made a better showing on neutral rights and duties. When Chile attempted to put the "Itata" and two other vessels under the protection of a neutral flag through a colorable transfer to a United States citizen early in the war, Evarts upheld Ministers Gibbs and Christiancy in their refusal to recognize the deal. Again, the United States envoys succeeded in getting Bolivia to recognize her treaty obligations respecting the seizure of neutral goods, when she attempted to issue letters of marque. Similarly, Minister Thomas A. Osborn was able to induce Chile to assume responsibility for any unnecessary losses to neutrals arising from her naval bombardments. And Christiancy took proper steps to safeguard the shipping interests of his country during the blockade of Peruvian ports.

On receiving complaints from Chile, the United States also took measures to fulfill its neutral duties by interrupting the flow of munitions, particularly torpedoes and torpedo boats, to Peru by way of Panama. But Christiancy refused to remove his consul at Iquique, Joseph W. Merriam, whom Chile accused of unneutral conduct.

The single triumph of United States diplomacy during the war occurred when a boundary dispute between Argentina and Chile was settled on 23 October 1881 through the mediation of Thomas O. Osborn



and Thomas A. Osborn, ministers at Buenos Aires and Santiago, respectively. To Peru, this success only increased the obligation of the United States to arrange an equitable peace on the Pacific, since it removed a threat on Chile's flank.

#### MR. BLAINE TAKES THE INITIATIVE

The inauguration of James A. Garfield brought to the State Department the most prominent political figure of the day, James G. Blaine. Although lacking in previous experience in diplomacy, Blaine believed in a vigorous foreign policy, which led him to take the initiative in South America in such a way as to raise more controversial issues than his predecessor and successor combined.

At the outset, his premature recognition of the provisional government of Francisco García Calderón in Peru in preference to Piérola, against the better judgment of Christiancy, complicated his peace efforts. Blaine's choice of new ministers, Stephen A. Hurlbut for Peru and Hugh Hudson Kilpatrick for Chile, was also unfortunate, for both promptly became strong partisans for the countries in which they resided. The policy of the new Secretary was to save Peru from a cession of territory if possible through a forthright offer of mediation.

Hurlbut at once took a decisive stand on the issues of the war. Determined to support Calderón in resisting cession of territory, he sent a memorandum to Admiral Patricio Lynch, commander of the occupation forces, which hinted at United States intervention. An open breach resulted between Hurlbut and Kilpatrick when the latter disavowed this stand in response to an inquiry from Chilean Foreign Minister José Balmaceda.

Additional indiscretions by Hurlbut appeared in a letter to Piérola calling upon him to step aside in favor of Calderón; in efforts to win the adhesion of guerilla leader, Andrés A. Cáceres, to the provisional government; in a protocol with Calderón leasing Chimbote Bay as a United States coaling station; and in a telegram to Argentina urging the recognition of Calderón by that country.

Blaine's management of affairs was further complicated by two financial claims against Peru, in addition to the importunities of the agents of the *Crédit Industriel*. John C. Landreau, a naturalized citizen, had earlier received some assistance from the State Department in pressing a claim for some millions of dollars, based on contracts made by his brother, a French citizen, for a share of extensive guano beds discovered in Peru. Blaine instructed his agents to call the claim to the attention of both Peru and Chile, to have it adjudicated in Peru, and to get its recognition as a prior lien on the guano of Tarapacá, if adjudged valid by Peru, in case that province were ceded to Chile.

The other claim, based on the pioneer discoveries of the commercial



value of guano by a French scientist, Alexandre Cochet, was wholly speculative in nature. Cochet had died a pauper in France in 1864, but a United States citizen in 1879 claimed to have purchased his rights against Peru. An eccentric New York lawyer, Jacob R. Shipherd, came into control of the claim and organized the bogus Peruvian Company to collect the fabulous sum of \$1,200,000,000. Shipherd managed to get the ear of some important men, including ex-President Grant and Senator Henry W. Blair, to help get the favorable attention of the State Department. For a time Blaine dealt with the claim, but abandoned it within a few months, condemning its promoter in the process. But Shipherd's maneuvers alarmed Chile and led to a congressional investigation of Blaine's administration.

Blaine refused steadfastly to give any encouragement to the agents of the *Crédit Industriel* despite repeated efforts on their part to get a statement from him. He did not oppose the "Programme", but he would do nothing to further the interests of this foreign corporation. Chile was uneasy, knowing that he was considering the plan, nevertheless.

Convinced that Calderón would not cede territory, Chile arrested him on 7 November 1881, ostensibly for disobeying orders of the occupation authorities. Hurlbut transferred his support to Admiral Lizardo Montero, the vice-president of the provisional regime, but Blaine demanded an explanation, thinking that Calderón's arrest was a thrust at the United States for having recognized him. Such an intention Chile naturally disavowed.

Before retiring from the Department on 19 December 1881, Blaine reprimanded both Hurlbut and Kilpatrick for their partisanship and indiscretions, while announcing that a special mission would handle the problem of peace. Possibly the rejection of an offer for joint action made by President Jules Grévy of France prompted Blaine to persist in his peace efforts.

A balanced judgment of Blaine's administration is difficult to reach, since the assassination of Garfield distracted his attention, and his most ambitious effort for peace—the special mission—was left in the hands of his successor. Blaine did not, however, supervise his envoys adequately, thereby only complicating the issues of the war.

#### THE TRESCOT MISSION: A LESSON IN FRUSTRATION

The special mission to the belligerents began well when Blaine selected William H. Trescot, the most competent diplomat available, to head it, assisted by the Secretary's own capable son, Walker Blaine. Using the arrest of Calderón as a lever, Trescot's instructions were designed to bring strong pressure (even to diplomatic rupture) on Chile to accept



an indemnity, or at least to permit peace negotiations without cession of territory as a condition precedent.

Having stopped briefly at Lima to canvass the situation, the special agents arrived in Chile early in January 1882, where they were accorded a warm personal welcome, tempered with uneasy expectancy. On 23 January Trescot telegraphed Chile's terms: cession of Tarapacá, plus 20,000,000 *soles* indemnity or cession of Tacna-Arica.

Blaine compromised Trescot's efforts somewhat by failing to entrust to him the invitations for all three belligerents to a proposed Pan American peace conference at Washington in November 1882, and by publishing, prior to retiring to private life, some of the instructions to Hurlbut and Kilpatrick. But the new Secretary, Frederick T. Frelinghuysen, made Trescot the victim of, perhaps, the worst fiasco in United States diplomacy when he altered Blaine's instructions, then submitted all the correspondence concerning the war to the Senate on 26 January, before the changed instructions reached the special mission, thereby allowing Foreign Minister Balmaceda, of Chile, to learn of the changes by telegraph before Trescot himself received them.

Trescot signed the Protocol of Viña del Mar with Balmaceda on 11 February, nevertheless, involving the terms above mentioned, in the hope of retaining Tacna-Arica for Peru if the cession of Tarapacá were granted. The receipt of a telegram from Frelinghuysen requiring negotiations only on the basis of an indemnity, however, and the news that the telegram containing Chile's conditions had been published, ruined Trescot's maneuver—his mission as well.

In private letters to Assistant Secretary J. C. B. Davis, Trescot strongly condemned the manner in which his mission had been mishandled and demanded his recall. He remained, though, on orders from Frelinghuysen, to propose arbitration by his government, which had no possibility of being accepted. Before returning home, Trescot also paid a visit to Admiral Montero in the interior of Peru, while Walker Blaine called at La Paz to reassure Bolivia that her interests were not being overlooked. Convinced that Chile would negotiate only with a Peruvian government so under her control as to assure the cession of Tarapacá and Tacna-Arica, the special agents left for the United States on 14 May 1882, their mission an utter failure.

The Trescot mission began with the best prospects of arranging peace of any effort undertaken by the United States. Perhaps Frelinghuysen reversed the original instructions, as widely claimed in the press, to avoid the threat of war with Chile, but the record indicates that Blaine intended to use only strong moral pressure. While there is no certainty that the mission would have succeeded under Blaine, it was foredoomed to failure when Frelinghuysen adopted methods which pointed suspiciously toward an ulterior motive—the discrediting of his predecessor.



## DOMESTIC POLITICS IN FOREIGN RELATIONS

Since Blaine had retired to private life with the expectation that his two projects, the Trescot mission and the Pan American Congress, would be sympathetically handled, he entered the lists with vigor when the Arthur administration publicly reversed his policies. In the ensuing political struggle Blaine largely vindicated his whole administration of affairs.

Although no love was lost between Blaine and the administration after the death of Garfield, both sides wished to avoid reopening the schism in the Republican party. Even after his retirement, cordial social relations were maintained—the calm before the storm.

The general reaction of the press to Blaine's retirement was one of relief: his policies, while brilliant, were dangerous; Frelinghuysen would be a safer man. The first intimation of an about-face in South America, however, appeared in a letter from elder statesman Hamilton Fish to his friend, J. C. B. Davis, first assistant to Frelinghuysen. In accordance with Fish's warnings, Davis believed after a hurried examination of the correspondence that Blaine's policies were fraught with danger of war with Chile.

Davis convinced his chief of this view, hence the instructions to Trescot were altered on 9 January 1882, removing any cause for friction with Chile and practically recalling the invitations to the Pan American Congress. Blaine attempted unsuccessfully to prevent the inclusion of the Trescot correspondence with the other papers submitted to the Senate on 26 January. Perhaps the administration acted without political bias, but a letter to Fish from Davis revealed that he anticipated "a desperate fight" with Blaine.

For six months thereafter Blaine's struggle with the administration over his conduct of the State Department received almost daily attention in the press. He countered charges of warmongering, of improper interest in claims against Peru, of attempting to annex Peru, of duplicity in his dealings with President Arthur, and of desiring to create a great confederation in South America under United States leadership, by interviews to papers friendly to his cause, by an open letter on 4 February to President Arthur, in which he placed the president in a difficult position for changing his mind concerning the Pan American Congress, and by testimony before an investigation by the Committee on Foreign Affairs of the House.

This House investigation began in March as an inquiry into charges that State Department officials were corruptly interested in the claims, particularly Shipherd's Cochet claim, against Peru, but soon became a trial of Blaine's whole administration. Blaine was able utterly to discredit Shipherd, thereby clearing himself of numerous charges, to establish that he did not back the *Crédit Industriel*, to discount the various



rumors of his warlike intentions, and to prove that he had acted throughout with the knowledge and consent of President Arthur. Blaine's chief antagonist among the committee members, Representative Perry Belmont, made much, however, of Blaine's rather unwise handling of the Landreau claim. The report of the committee exonerated all State Department officials.

If the administration indeed had intended to ruin Blaine, their tactics backfired, for this domestic political struggle over foreign relations kept him before the public when his retirement from office might have relegated him to obscurity. He won the laurels in the contest, to emerge as Republican candidate for the presidency in 1884.

#### MR. FRELINGHUYSEN COUNSELS PEACE

With both Kilpatrick and Hurlbut dead, Secretary Frelinghuysen was free to appoint new ministers for carrying out his program to restore peace. But his method, epitomized in the phrase, "This state of affairs [political and economic stagnation in Peru], should be terminated, and will be if friendly counsels are allowed to prevail", suggests that he failed utterly to comprehend the intransigence of Chile.

A capable minister, Dr. Cornelius A. Logan, was sent to Santiago with wide discretionary powers to arrange peace. His instructions recognized that Tarapacá must go to Chile, possibly Tacna-Arica as well, but Peru should receive an indemnity. The new agent to Peru, James R. Partridge, was directed to support Logan's efforts and to convince Admiral Montero of the necessity of sacrifices by Peru. George E. Maney also went to Bolivia with instructions to follow the lead of his colleagues.

Logan launched upon a series of complicated negotiations immediately after his arrival on 7 September 1882, dealing with García Calderón, then a prisoner of Chile. Just when Logan thought he had found satisfactory bases for peace, the negotiations broke down in November on matters of procedure. He attempted to circumvent his difficulties by writing directly to Vice-President Montero in Peru to get his support for the cession of Tarapacá and the sale of Tacna-Arica as proposed to Calderón. The inadvertent publication of this letter ruined Logan's chances as a peacemaker. His proposals were significant, nevertheless, for they contained several features later incorporated into the Treaty of Ancón which restored peace.

Minister Partridge was deeply offended by Logan's having written directly to Montero. He had only himself to blame, since he had remained in Lima instead of joining Montero in the interior. Partridge's conduct had been strongly partisan in favor of Peru, so now Logan demanded that the Department settle the differences between them. Frelinghuysen did nothing. But Partridge was quickly disavowed and



recalled when news reached Washington that he had proposed joint intervention with the ministers of England, France, and Italy in January 1883.

The supreme peace effort of Frelinghuysen occurred in March on the strength of conversations with the agents of Peru and Chile in Washington, when he directed Logan to offer arbitration on the basis of cession of Tarapacá, with the arbitrator to dispose of the Tacna-Arica issue. This project had no chance for success since it involved the recognition of Calderón. Moreover, Chile had transferred her attentions to a new leader in Peru, General Miguel Iglesias.

A movement with Iglesias as "Regenerator President" had gathered momentum in the north of Peru for some months before Chile negotiated a preliminary peace protocol with him at Chorrillos on 12 May 1883, granting all that she had demanded in vain from Calderón. To assure no miscarriage of her plans this time, Chile stipulated that Iglesias would receive recognition only on the ratification of a treaty embodying the terms of the protocol.

After a final, futile effort to negotiate with Calderón, Logan proposed that he be accredited to all three belligerents, recognize Iglesias, and throw the influence of the United States behind a speedy peace. Instead, Frelinghuysen appointed Seth Ledyard Phelps to the legation at Lima and Richard Gibbs to La Paz, with instructions only to report the passing scene. From this time forward the United States exerted no positive influence on the outcome of the war.

Despite the urgings of Logan, Frelinghuysen followed the advice of Phelps in delaying the recognition of Iglesias to avoid the dilemma which had arisen in the case of Calderón. In the treaty of Ancón, signed with Iglesias on 20 October 1883, Chile gained all her demands: annexation of Tarapacá; occupation of Tacna-Arica for ten years, a plebiscite to determine its permanent sovereignty; no obligation to honor Peru's indebtedness based on the resources of Tarapacá; and various articles concerning guano. Sustained only by Chilean arms, the government of Iglesias ratified the treaty on 10 March 1884, despite official protests from Europe and unofficial ones by the United States.

Thus ended the War of the Pacific in a manner that completely discredited the ill-starred diplomacy directed from Washington.

#### SOME CONSIDERATIONS ON UNITED STATES DIPLOMACY

That the diplomacy of the United States in relation to the War of the Pacific was unfortunate in almost every way admits of no serious doubt. By assuming the role of exclusive peacemaker, the successive secretaries of state only prolonged the suffering occasioned by the war, irritated Chile to the point where she would tolerate no interference unbacked by force, and deeply alienated the natural affection of Peru



for the government in Washington. The responsibility of the United States for the protracted struggle was the greater, since European powers would most likely have imposed an early settlement if permitted to do so.

The relative responsibility attributable to the three secretaries of state who dealt with the problem is a controversial issue. It is apparent, in retrospect, that neither the careful policy of Evarts in recognition of the belligerent rights of the contestants, while offering mediation to the exclusion of European powers, nor the cautious efforts of Frelinghuysen on similar lines, had any chance of restoring peace. A balanced judgment on Blaine is more difficult to reach. His conception of a vigorous foreign policy was at variance with the views of both the others. He did not attempt, however, to achieve more than they, except for his proposed Pan American Congress. It is true that Blaine's handling of the claims against Peru militated against the success of his policies, as did his failure to supervise his ministers adequately. But the assassination and lingering death of President Garfield can be cited in extenuation of these failures. Concerning arbitration, no annexation of territory by force, promotion of trade, and respect for other cultures—ideas involved in his advocacy of a Pan American Congress—Blaine was well in advance of his times. Finally, while it cannot be maintained that the special mission would have succeeded under him, his original instructions to Trescott demonstrated that Blaine alone of the three secretaries understood that the employment of no more than the usual polite diplomatic methods would only prove embarrassing to all, accomplishing nothing.

The failure of the diplomacy of the United States cannot be attributed wholly to the ineptitude of its several ministers or to the slowness of communication. The officials at the Department of State often failed to lay down clear-cut policies and to supervise their agents adequately, even when they asked for more explicit direction. Moreover, premature publicity, for which both the ministers and the home government must share the blame, ruined every project to restore peace which had any prospects of success.



## ELECTROCARDIOGRAPHIC CHANGES IN RATS ON THIAMINE DEFICIENT DIETS

by LOUIS JOSEPH PECORA \*

### INTRODUCTION

The work reported here was undertaken to investigate the possibility that rice contains some hitherto unknown substance or property that might protect the cardiovascular system from damage due to hypertension and other cardiovascular diseases. Currently, the influence of diet is receiving considerable attention as an important factor in the relief or control of hypertension and a variety of cardiovascular diseases. There are several dietary approaches in consideration, namely, drastic sodium restriction, low protein intake, drastic food restriction, and combinations of all these.

The rice diet of Kempner (17, 18, 19, 20) has proved to be successful in improving the cardiovascular status of some hypertensive patients. He has reported that about 70 per cent of the patients treated obtained marked benefit. The rationale of the rice diet has not yet received a satisfactory explanation. Several possibilities suggest themselves, namely, the low caloric intake, the low protein content of the rice diet, the low sodium intake, the particular combination of amino acids found in rice, or some hitherto unknown protective substance or property of rice.

The possibility that rice may contain some unknown protective substance or property capable of protecting the cardiovascular system was also suggested by the difference in the electrocardiographic results obtained in beriberi patients by Weiss and Wilkins (33, 34) and Wenckebach (1, 35). Weiss and Wilkins reported well defined alterations in the electrocardiograms of occidental patients with beriberi in Boston, while Wenckebach observed no important electrocardiographic changes in patients with beriberi in Java. The occidental patients were chiefly severe chronic alcoholics with no thiamine intake. The oriental patients presumably subsisted on a staple diet of white polished rice which supplied about fifty gammas of thiamine per hundred grams. If it is presumed that the oriental beriberi resulted chiefly from a polished rice diet, then an hypothesis may be drawn that rice may possess some protective substance or property that benefits the heart.

Since rice is the basis of the Kempner diet, the beneficial influence of the diet may be partially explained by the natural characteristics of rice itself. Rice contains a small amount of sodium, protein, and fat. The Kempner diet recommends a caloric intake of about 2000 per day. It has been shown by other investigators that the several conditions of the

\* B.S. 1933, Tufts College; Ph.D. conferred June 1, 1949.



Kempner diet considered individually can lower the blood pressure in the hypertensive human or animal.

Grollman and Harrison (12) have reported a reduction in blood pressure in hypertensive rats on drastic sodium restrictions. Lenel, Katz, and Rodbard (22), produced hypertension in chickens by adding sodium chloride to the drinking water, resulting in an increase of blood pressure from an average of 132/47 mm Hg to 183/154 mm Hg.

Handler and Bernheim (13) and Dontigny, Hay, Prado, and Selye (10) have observed in hypertensive rats that the blood pressure follows the protein content of the diet, the blood pressure increasing as the protein content of the diet increased and vice-versa.

There is considerable evidence that drastic food restriction also can produce lowering of the blood pressure as shown by Brozek, Chapman, and Keys (5), Terry (30), and Adlersberg, Coler, and Laval (2). Studies of the Leningrad physicians on hypertension, as reported in the Leningrad Medgiz. (24), during the World War II years showed a marked decrease in blood pressure in hypertensive patients on a limited diet during the siege of Leningrad from 1941 to 1942. Similarly, Burger, Sandstead, and Drummond (6) observed striking decreases in blood pressures in Holland during the winter of 1944 and 1945 when the dietary restriction was at its height.

In order to test the hypothesis that rice may possess some unknown protective property, rats were made extremely thiamine deficient as a means of producing severe cardiovascular damage. Several investigators have described pathological lesions in the hearts of various animals on non-rice diets with a severe chronic thiamine deficiency. Ashburn and Lowry (3) have reported definite pathological lesions in the auricles and pulmonary veins of the chronic thiamine deficient rat. The studies of Porto and de Soldati (27) on dogs, and Follis, Miller, Wintrobe, and Stein (11) on hogs have revealed similar lesions in the auricular myocardium associated with chronic thiamine deficiency. Wintrobe, Alcayaga, Humphreys, and Follis (38) found pronounced electrocardiographic changes in the chronic thiamine deficient swine. Hundley, Ashburn, and Sebrell (15), and King and Sebrell (21) likewise reported specific abnormalities in the electrocardiogram of the chronic thiamine deficient rat.

The plan followed in the experiment reported here, was to observe electrocardiographically and pathologically the extent of cardiac damage as influenced by the experimental diets.

#### METHODS AND MATERIALS

Two rice diets and two casein "synthetic" diets were used. One of each contained adequate thiamine. One casein "synthetic" diet was thiamine free and one rice diet contained only the thiamine supplied by the



polished white rice. The rice diet was composed of ground polished rice (40-60 mesh) 77.9 g, vitamin free casein 12.1 g, cottonseed oil 3 g, cod liver oil 2 g, Osborne and Mendel salt mixture 4 g, and vitamin-starch powder 1 g. The vitamin-starch powder supplied all the known required vitamins for the rat. The casein "synthetic" diet consisted of vitamin free casein 18 g, sucrose 72 g, cottonseed oil 3 g, cod liver oil 2 g, O&M salt mixture 4 g, and vitamin-starch powder 1 g.

Young male albino rats of the Osborne and Mendel strain and the Sprague-Dawley (NIH) strain were used. Electrocardiograms were obtained with a Sanborn electric "Portocardiograf" in conjunction with a Sanborn "Cardioscope" amplifier. The three standard limb leads were used. Special German silver electrodes were devised by the author for use on the rat. As animals developed acute episodes of polyneuropathy (ataxia, spasticity, and convulsions) they were treated with 50 gammas of thiamine and allowed to develop a second and a third deficiency. Those that died and others that were sacrificed, were autopsied and examined histologically.

#### RESULTS

The contour of the rat's electrocardiogram is essentially like that of the human. The average PR interval is  $0.042 \pm 0.002$  sec., the QRS  $0.012 \pm 0.001$  sec., and the QT  $0.050 \pm 0.004$  sec. in the normal young rat.

The average weight curves of the control animals on both diets were normal. The average weight curves for the animals on both experimental diets were the same up to 150 grams, then dropped to 125 grams. The animals on the experimental rice diet remained at this level to the end of the experiment and the group on the experimental casein "synthetic" diet dropped to an average of 90 grams and stayed at this level to the end of the experiment.

Bradycardia was a cardinal symptom in these thiamine deficient rats. In addition to this, many of the deficient animals showed striking disorders of rhythm. The commonly occurring disorders were sinus arrhythmia with wandering pacemaker of sinus node and auricular ectopic origin, first degree AV block, auricular fibrillation, premature ventricular beats with bigeminy and prolonged QRS and QT intervals. During their first deficiency, six of the nineteen rats on the experimental casein "synthetic" diet had definite disorders of rhythm. Ten animals on the experimental casein "synthetic" diet entered a second deficiency episode and all developed disturbances of rhythm. Seven rats went through a third acute deficiency episode and five had rhythm disturbances.

Five of the twenty rats on the experimental rice diet that went through the first deficiency episode developed alterations of rhythm. Five of the fifteen rats during the second deficiency episode, and three of the nine



rats during the third deficiency episode had definite alterations of rhythm.

The PR interval was prolonged to a certain extent in all cases going through an acute deficiency episode. The group average PR was restored less and less toward normal with each successive deficiency period in the group on the experimental casein "synthetic" diet after thiamine therapy. The average PR interval was restored to normal after each successive deficiency period following thiamine therapy in the group on the experimental rice diet. The incidence of first degree AV block as indicated by an abnormally prolonged PR interval was about the same in both groups.

The group average QRS for both groups of experimental animals remained essentially normal. There was a greater incidence of prolonged QRS intervals in the group on the experimental rice diet than on the experimental casein "synthetic" diet. The QRS changes were similar to the bundle of Kent syndrome in the human.

The QT interval was prolonged about 30 per cent in both groups during the first deficiency and remained at this value to the end of the experiment. The QT value fluctuated irregularly around this new level.

Many variations in the P waves were observed in the tracings taken during the acute thiamine deficiency periods. The variations were similar in both groups. The group average R wave was elevated to approximately double the normal level for both groups during the first acute deficiency episode and remained elevated to the end of the experiment. There were marked irregular T wave variations in the group on the experimental casein "synthetic" diet but none in the rice group. The ST takeoff in the rats on the experimental rice diet showed less deviation from the normal than did the experimental animals on the casein "synthetic" diet.

Other symptoms such as emaciation, anorexia, weakness, decreased body temperature, cyanosis, depressed blood pressure generally accompanied the polyneuritis associated with the acute thiamine deficiency. The average time elapsed for the production of acute thiamine deficiencies in the experimental rats on both diets were about the same. The potassium content of the heart of the thiamine deficient rat was found to be lower than in the normal rat. The sodium was unchanged.

The incidence of pathological changes in the myocardium of rats on the experimental casein "synthetic" diet was about twice that of the rats on the experimental rice diet. Similarly the incidence of both electrocardiographic changes and pathological changes occurring together was greater in the rats on the experimental casein "synthetic" diet than in the rats on the experimental rice diet.

#### DISCUSSION AND CONCLUSIONS

The experimental results show that the animals on the experimental rice diets maintained a higher weight level than the animals on the



experimental casein "synthetic" diet during the chronic thiamine deficiency period. The rats on the experimental rice diet had less changes in rhythm, PR interval, ST takeoff, and pathology, but had a greater incidence of QRS interval disturbances. All other measurements were essentially alike. However, there was a striking difference in the occurrence and severity of heart pathology. The rats on the experimental rice diet had about half the incidence of pathological changes in comparison to the animals on the experimental casein "synthetic" diet, and the changes in the hearts showing pathology were much less severe.

The results of this experiment show that the cardiovascular system received more protection from the experimental rice diet than from the experimental casein "synthetic" diet. The nature of the results do not permit a positive conclusion as to whether the favorable effects of the experimental rice diet are due to some unknown substance or property of rice or whether the favorable effects are due to the trace of thiamine in the polished rice. This experiment was intentionally designed to produce in the rat severe thiamine deficiency in order to obtain cardiovascular damage of a magnitude that could be followed electrocardiographically and pathologically. Both experimental diets used in this experiment produced a severe thiamine deficiency even though the polished rice did supply about fifty gammas of thiamine per hundred grams. There is the possibility that the thiamine deficiency in this experiment might have been so severe as to obscure some protective effects which might have been evident under milder conditions. The disturbances in cardiac behavior and pathological changes in both groups were similar in character and were differentiated in incidence and severity only by careful measurements and observations.

The lack of electrocardiographic changes noted by Wenckebach (1, 35) in his oriental beriberi patients in Java and the well-defined electrocardiographic changes reported by Weiss and Wilkins (33, 34) on their occidental beriberi patients in Boston may be explained by the difference in diet. The oriental patients subsisted chiefly on a diet of polished rice supplying about fifty gammas of thiamine per hundred grams, while the occidental patients were principally severe chronic alcoholics with no thiamine intake. This situation is comparable to the experiment reported here and in like manner the dissimilarity in results may be explained by the differences in thiamine intake.

It was not desirable or possible in this experiment to simulate the Kempner regimen. Rats did not grow well on an extremely high rice diet and a thiamine deficiency could not be produced in a relatively short time. In addition, the Kempner diet is supplemented with adequate vitamins. Other factors, such as low sodium, protein, and caloric intake known to produce a lowering in blood pressure also obtain in the Kempner rice regimen. These conditions were eliminated in the experi-



mental diets used in this investigation so that only one variable, the rice, could be studied. However, if it had been possible to simulate the Kempner regimen in rats, the results might have been more impressive. Our study does not permit any inference to be made as to what role rice may play in the beneficial influence produced by the Kempner diet. Further experimental studies using different techniques and approaches will be necessary to evaluate the role of rice in the Kempner diet.

#### SUMMARY

1. The success of the Kempner rice diet in improving the cardiovascular status of some hypertensive patients suggested that rice might contain some hitherto unknown protective substance or property capable of protecting the cardiovascular system from damage due to hypertension and other cardiovascular diseases. This suggestion was further supported by the differences in the electrocardiographic findings reported by Wenckebach in oriental rice eaters with beriberi and Weiss and Wilkins' occidental beriberi patients.
2. Evidence from the literature was presented to show that several features of the Kempner rice diet, when considered individually, are capable of producing a decline in blood pressure.
3. Chronic thiamine deficiency was selected as the method for producing severe cardiovascular disturbances and damage.
4. Two rice diets and two casein "synthetic" diets were used. One of each contained adequate thiamine. One casein "synthetic" diet was thiamine free and one rice diet contained only the trace of thiamine supplied by the polished white rice.
5. Young albino male rats of the Sprague-Dawley (NIH) and Osborne and Mendel strains were used.
6. Animals were allowed to go through an acute thiamine deficiency episode and then treated with thiamine. Some animals went through a second and third deficiency episode. Electrocardiograms were taken several times during the attack and at least once twenty-four hours after thiamine therapy.
7. All the electrocardiograms were obtained with a Sanborn "Porto-cardiograf" in conjunction with a Sanborn "Cardioscope," a combination especially designed for use with rats and other small animals with fast heart rates. Special German silver electrocardiograph contact electrodes were designed by the author for use with rats.
8. Data were presented on the electrocardiograms of the normal young rat and the abnormal rat. The relationship of the component time intervals to the heart rate of the rat was compared to that of the human.
9. Data were presented to show the influence of a high rice diet upon the cardiac behavior of the thiamine deficient rat as determined electrocardiographically and pathologically.



10. Data were presented on the growth changes and heart rate changes occurring simultaneously as the chronic thiamine deficiency progressed. The same observations were made during the acute thiamine deficiency episodes.

11. Striking alterations in rhythm were noted in the electrocardiograms of the animals on both experimental diets. The incidence and severity were less in the animals on the experimental rice diet than on the experimental casein "synthetic" diet.

12. The results showed alterations in the component time intervals in both groups, and the less severe were noted in the group on the experimental rice diet. The results showed similar voltage changes in both groups.

13. Observations were made on blood pressure, body temperature, blood picture, cyanosis, anorexia, and emaciation in the thiamine deficient rat. These observations were interpreted as being similar to those present in any severe illness.

14. The potassium content of the hearts was found to be lower in the thiamine deficient rat than in the normal rat. The sodium remained unchanged.

15. The incidence of pathological changes in the myocardium of the rats on the experimental casein "synthetic" diet was about twice that of the rats on the experimental rice diet. The incidence of electrocardiographic changes associated with the pathological changes was greater in the rats on the experimental casein "synthetic" diet than in the rats on the experimental rice diet.

16. The results of this experiment showed that the cardiovascular system received more protection from the experimental rice diet than from the experimental casein "synthetic" diet. The results do not permit a positive conclusion as to whether the beneficial results are due to the trace of thiamine in the rice or to some unknown protective substance or property.



# THE THEORY OF TRIPLE-DIPOLE INTERACTION

by BENJAMIN M. AXILROD \*

## INTRODUCTION

Among the many problems in the theory of solids that need to be solved are those concerned with explaining the cohesive energy and structure of the class of solids known as van der Waals or molecular crystals. In order to solve such problems it is necessary to understand the forces that act between molecules. The theory of such forces, however, is necessarily an approximate one, since it involves the solution of a many-body problem in quantum mechanics. Hence such a theory may predict the cohesive energy of these solids with an accuracy perhaps no better than about 25 per cent. Since the difference in the cohesive energy for the observed structure of a substance and another possible crystal structure may be very small, for many substances the observed structure, which must be the one with lower cohesive energy, cannot be explained theoretically.

The objectives of this research were: (1) to develop the theory of van der Waals attractions further by applying third-order perturbation theory, (2) to apply the results of this development to the cohesion and structure of some molecular crystals, and (3) to learn how to solve such a problem with the aid of high-speed calculating machines. The last objective was found essential as the research progressed, for it developed that the problem involved the numerical calculation of thousands of terms in a summation, a task unsuited to the ordinary desk calculating machine. A problem of this type had not been solved previously with the high-speed computing machines; hence it was necessary to develop special techniques.

## REVIEW OF THEORIES OF MOLECULAR FORCES

The weak forces which exist between atoms and molecules in a gas and which cause the equation of state to deviate from that for the ideal gas are called van der Waals forces. These forces play a part in other physical phenomena such as cohesion in liquids, molecular crystals, and high polymers.

The nature of these forces could be fairly well explained by classical theory for the case of dipolar molecules such as  $H_2O$ . The attractive force between such molecules was resolved into two parts. One component was obtained by averaging the interaction of a pair of permanent dipoles over all space orientations with regard for Boltzmann statistics. The other component was obtained by considering the mutual polarizability of polar molecules. An attractive potential proportional

\* B.E.E. 1933, M.S. 1934, University of Minnesota; Ph.D. conferred November 11, 1949.



to  $R^{-6}$ , where  $R$  is the intermolecular distance, was obtained for both components. To explain the attraction in diatomic gases such as  $H_2$  and in the rare gases, Debye calculated the attraction due to mutual polarizability between a pair of such molecules by assuming the molecules to have quadrupole moments.\* The quadrupole moments could not be measured, so Debye calculated them from the energy associated with the internal pressure correction of the van der Waals gas equation. With the development of quantum mechanics the quadrupole explanation was found inadequate for several reasons; for example, the rare gases were spherically symmetrical and had no permanent multipoles.

The development of quantum mechanics led to a reasonably satisfactory explanation of the attraction between neutral molecules such as  $H_2$  and the rare gases Ne, Ar, Kr, and Xe. The application of second-order perturbation theory to the interaction of two atoms yielded the following approximate formula,

$$(1) \quad W_0' = - \frac{3}{2R^6} \frac{\alpha_1 \alpha_2 \bar{W}(1)\bar{W}(2)}{\bar{W}(1) + \bar{W}(2)},$$

where  $\alpha_1$  and  $\alpha_2$  are the polarizabilities and  $\bar{W}(1)$  and  $\bar{W}(2)$  are the mean excitation energies of the two atoms.†

The derivation of Eq. (1) is of interest as a similar procedure will be followed for the triple-dipole interaction.

For simplicity consider the interaction of two hydrogen atoms whose nuclei are on the  $x$  axis. If the interaction potential is expanded in a Taylor's series in powers of the internuclear distance, one obtains for the dipole-dipole term:

$$(2) \quad V_{dd}(1, 2) = - \frac{e^2}{R^3} (2x_1x_2 - y_1y_2 - z_1z_2),$$

where  $x_1, y_1$  and  $z_1$ , and  $x_2, y_2$ , and  $z_2$  are the coordinates of the electrons relative to their respective nuclei.‡

Suppose a system whose unperturbed energy levels are  $W_0^0, W_1^0, \dots, W_k^0$ , etc. and whose Hamiltonian operator is  $H^0$ . Let the Hamiltonian operator for the perturbed system be  $H$ . Then

$$(3) \quad H = H^0 + H',$$

where  $H'$  in the present instance is simply the interaction potential. According to perturbation theory it can be shown that the first-, second-,

\* P. Debye, *Physik. Z.* 21, 178 (1920).

† Eisenschitz and London, *Zeit. f. Physik* 60, 491 (1930).

‡ The same form would result for polyelectronic atoms, except that terms such as  $x_1x_2$  would be replaced by a sum.



and third-order corrections to the unperturbed energies  $W_k^0$  reduce respectively to the following when  $H$  is defined by Eq. (3) and  $W_k = W_k^0 + W_k' + W_k'' + W_k''' + \dots$ .\*

$$(4a) \quad W_k' = H_{kk}'$$

$$(4b) \quad W_k'' = - \sum_j \frac{H_{kj}' H_{jk}'}{W_j^0 - W_k^0}$$

$$(4c) \quad W_k''' = \sum_{i \neq k} \sum_{j \neq k, i} \frac{H_{ki}' H_{ij}' H_{jk}'}{(W_j^0 - W_k^0)(W_i^0 - W_k^0)} + \sum_{i \neq k} \frac{(W_i' - W_k') H_{ki}' H_{ik}'}{(W_i^0 - W_k^0)^2}$$

The quantities  $H_{jk}'$  are matrix elements as usually defined, namely, the integral over configuration space of the product of the complex conjugate of the wave function for state  $j$ , the perturbation  $H'$ , and the wave function for state  $k$ .

Now for our case the two atoms are in the ground state, i.e.,  $k=0$  in Eq. (4). If the perturbation  $H'$  is taken as the dipole-dipole potential  $V_{dd}$ , it is found that  $W_0'$  vanishes. Consider the second-order energy  $W_0''$ . The matrix elements in the summand of Eq. (4b) are the same as the dipole-moment integrals of optical radiation theory. If one makes use of the properties of these integrals and of the spherical symmetry of the atom, and if the denominators,  $W_j^0 - W_0^0$ , in Eq. (4b) are replaced by a mean excitation energy, an approximate expression for  $W_0''$ , Eq. (1), is obtained.†

London showed for a number of rare gas and molecular crystals that, if the induced dipole-dipole interaction given by Eq. (1) was summed over the crystal lattice, neglecting the repulsive interaction and the higher-pole attractions, values equal to the measured heat of sublimation to within 10 to 20 per cent were obtained.‡ Since the experimental values of the heats of sublimation agree only to within 10 to 20 per cent, London's results agree surprisingly well with experiment in view of his assumptions.§¶

Although the second-order perturbation theory has been developed sufficiently to explain several phenomena, the contribution of the energy associated with third-order perturbation theory to the van der Waals attraction has not been determined.

\* Born, Heisenberg, and Jordan, *Zeit. f. Physik* 35, 588 (1925/6).

† F. Seitz, *Modern Theory of Solids* (McGraw-Hill Book Co., 1940), p. 267.

‡ F. London, *Zeit. f. Physik. Chemie* 11B, 222 (1930).

§ F. London, *Trans. Far. Soc.*, 33, 8 (1937).

¶ F. Seitz, *Modern Theory of Solids*, p. 393.



## DERIVATION OF FORMULA FOR TRIPLE-DIPOLE INTERACTION

The derivation is made for atoms interacting at great distances. As in the case of the dipole-dipole interaction the results will be applicable to molecules if the latter can be treated as centers of force.

Let us restrict ourselves to the case of the interaction of neutral atoms which are in the lowest energy level and assume the latter is non-degenerate. For this case the third-order interaction energy  $W_0'''$  is according to Eq. (4c):

$$(5) \quad W_0''' = \sum_{j \neq k, 0} \sum_{k \neq 0} \frac{H'_{0j} H'_{jk} H'_{k0}}{(W_j^0 - W_0^0)(W_k^0 - W_0^0)}.$$

The interaction energy  $W_0'''$  is associated with the mutual interaction of three atoms. This will be justified later. The wave function of the unperturbed system is taken as the product of the atomic wave functions; the corresponding energy of the system is the sum of the atomic energies. Now if we proceed in a manner similar to that used for deriving the dipole-dipole interaction with  $H'$  equal to the sum of three dipole-dipole potentials of the type given in Eq. (2), we obtain again the one-atom dipole-moment integrals of optical radiation theory. They vanish, according to the Laporte rule,\* unless the atomic transitions are between even and odd states, i.e., the parity must change in a dipole transition. If three atoms interact pairwise successively, each atom undergoes two virtual transitions. Its parity changes twice and it can return to the initial state as indicated by Eq. (4c). It can be shown that if the system of atoms consists of say two or four atoms, three transitions of the system involving pairwise interactions will not return each atom to its initial state if each atom interacts with every other atom. For this reason,  $W_0'''$  is called the triple-dipole interaction.

For convenience the derivation of the triple-dipole interaction is carried out in two steps. First, the interaction energy for three *collinear* atoms is derived by methods similar to London's;† the result is an approximate equation for this energy in terms of measurable quantities such as the atomic polarizabilities and the ionization energies. Subsequently, the angular dependence is determined for three non-collinear atoms with a simplified atom model.

*A. The Triple-Dipole Interaction for Three Collinear Atoms.*— Suppose the three atoms are oriented with their nuclei along the x axis. As noted earlier,  $H'$  is simply the sum of three dipole-dipole interaction potentials,  $V_{aa}(1,2)$ ,  $V_{aa}(2,3)$ , and  $V_{aa}(1,3)$  with  $V_{aa}(1,2)$  given by Eq. (2) and the other potentials being similarly defined.

\* E. C. Kemble, *Fundamental Principles of Quantum Mechanics* (McGraw Hill Book Co., 1937, p. 540).

† F. Seitz, *Modern Theory of Solids*, p. 267.



Suppose corresponding to the product  $H'_{0j} H'_{jk} H'_{ko}$  a sequence of interactions between, first, atoms 1 and 2, next, between atoms 2 and 3, and, last, between atoms 1 and 3. It is found that, if in the first step atom 1 goes to a  $P_x$  state, all excited states are  $P_x$  states in the sequence, and similarly for the  $P_y$  and  $P_z$  states. Hence the summation in Eq. (5) can be separated into three sums,  $X_s$ ,  $Y_s$ , and  $Z_s$ , the first over  $P_x$  states, the second over  $P_y$  states, etc. Owing to the spherical symmetry of the atomic wave functions, there is an equivalence between the dipole-moment integrals that enter into the matrix elements  $H'_{0j}$ , etc. As a consequence,  $X_s$ ,  $Y_s$ , and  $Z_s$  are essentially the same except for a numerical factor.

The derivation so far has been limited to the sequence in which the pairs of atoms interact as follows: first, atoms 1 and 2, next, atoms 2 and 3, and last, atoms 1 and 3. It is necessary to repeat the calculation for five other  $P_x$  sequences in which the three atoms interact in a different order. This is readily done. Now, as in the dipole-dipole derivation of London, we introduce mean atomic excitation energies in place of the energy levels  $(W_j^0 - W_0^0)$ ,  $(W_k^0 - W_0^0)$  in Eq. (5). The result for three collinear atoms is:

$$(6) \quad W_0''' = - \frac{3}{R_{12}^3 R_{23}^3 R_{13}^3} \frac{(V_1 + V_2 + V_3) V_1 V_2 V_3 \alpha_1 \alpha_2 \alpha_3}{(V_1 + V_2) (V_2 + V_3) (V_1 + V_3)},$$

where  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3$  are the static polarizabilities and  $V_1$ ,  $V_2$ , and  $V_3$  the ionization energies of atoms 1, 2, and 3, respectively, and where  $R_{gi}$  is the distance between atoms  $g$  and  $i$ .

*B. The Angular Dependence of the Triple-Dipole Interaction.*—To obtain the angular dependence we consider the interaction of three identical atoms using a simplified atom model. Suppose that each atom has one electron and has only two states, one, the lowest, an  $s$  state and the other a degenerate  $p$  state. Let the distances between the three nuclei be  $R_{12}$ ,  $R_{23}$ , and  $R_{13}$ , and let  $\gamma_1$ ,  $\gamma_2$ , and  $\gamma_3$  be the angles of the triangle formed by these nuclei with  $\gamma_1$  the angle included by the sides  $R_{12}$  and  $R_{13}$ , and with  $\gamma_2$  and  $\gamma_3$  defined similarly. The coordinate axes for the electron in each atom referred to its nucleus are chosen as follows. The  $z$  axes are perpendicular to the plane of the three nuclei, and the  $x$  axis with origin at a given nucleus is chosen to bisect the angle formed by the lines joining that nucleus with the two other nuclei.

We consider a sequence of interactions in which the order of interaction is first, atoms 1 and 2, next, 2 and 3, and last, 3 and 1 or symbolically (1,2; 2,3; 3,1); further let the excited states all be  $p_x$  states. When the matrix element  $H'_{0j}$  for this case is calculated with  $H'$  a sum of dipole-dipole potentials, the resulting equation for  $H'_{0j}$  expresses the classical interaction of a dipole of moment  $M$  at the nucleus of



atom 1, parallel to the  $x_1$  axis, with an identical dipole at the nucleus of atom 2, parallel to the  $x_2$  axis. The matrix elements  $H'_{0j}$ ,  $H'_{jk}$ , and  $H'_{k0}$  can accordingly be written readily for any sequence of excited states. Let us introduce the symbol  $(xyx)$  for the product  $H'_{0j} H'_{jk} H'_{k0}$  to indicate for the atoms interacting in the order  $(1,2; 2,3; 3,1)$  that the excited state of atoms 1, is  $p_x$ , of atom 2 is  $p_y$ , and of atom 3 is  $p_x$ . Let similar symbols indicate  $H'_{0j} H'_{jk} H'_{k0}$  for the other sequences of excited states. There are a total of nine such products, expressed symbolically, as follows:  $(xxx)$ ,  $(xxy)$ ,  $(xyx)$ ,  $(xyy)$ ,  $(yxx)$ ,  $(yxy)$ ,  $(yyx)$ ,  $(yyy)$ , and  $(zzz)$ .

The multiplication and summation of these nine triple-products  $H'_{0j} H'_{jk} H'_{k0}$  for the order of interaction  $(1,2; 2,3; 3,1)$  is a fairly straightforward but lengthy process.

The following expression is finally obtained for  $W_0'''$  for all sequences of interaction:

$$(7) \quad W_0'''(1,2,2,3,3,1) = \frac{C_1}{R_{12}^3 R_{23}^3 R_{13}^3} [3 \cos \gamma_1 \cos \gamma_2 \cos \gamma_3 + 1].$$

If all other orders of pairwise interaction are considered, the result is the same except for a constant factor. If we write Eq. (7) for three collinear atoms and compare the result with Eq. (6), we finally obtain for the triple-dipole interaction  $W_0'''$  for any three atoms:

$$(8) \quad W_0''' \cong \frac{3}{2} \frac{(V_1 + V_2 + V_3) V_1 V_2 V_3 \alpha_1 \alpha_2 \alpha_3 (3 \cos \gamma_1 \cos \gamma_2 \cos \gamma_3 + 1)}{(V_1 + V_2)(V_2 + V_3)(V_1 + V_3) R_{12}^3 R_{23}^3 R_{13}^3}$$

#### APPLICATIONS OF THE TRIPLE-DIPOLE INTERACTION

To show the magnitude of the triple-dipole interaction relative to other components of the van der Waals attraction let us compare the former with the dipole-dipole interaction of rare gas atoms. Suppose the three atoms form an equilateral triangle with sides of length  $a$ . Then it can be shown that the ratio of the triple-dipole to the dipole-dipole interaction for the three atoms taken in pairs ranges from 0.004 to 0.017 for Ne, Ar, Kr, and Xe if the  $a$  is assumed to equal the nearest-neighbor distance in the crystal of the element considered. Hence the triple-dipole interaction is relatively small compared to other components of the van der Waals attraction.

An instance where relatively small forces may have an important effect is that of explaining the crystal structure of an element or compound when two or more similar structures are likely. An example of this kind which has not been explained is the crystal structure of the rare gases, neon, argon, krypton, and xenon.\*

\* Rice and Teller, *The Structure of Matter* (John Wiley and Sons, 1949), pp. 151-153.



These elements pack together like spheres in a face-centered cubic structure. An equally close-packed structure is the hexagonal lattice with axis ratio of 1.633. It is not possible to explain the preference for the face-centered cubic structure on the basis of differences in the dipole-dipole, dipole-quadrupole or higher-pole interactions for the two crystal structures. For each multipole-multipole interaction the difference in the lattice sum is about a ten thousandth of the sum itself.\*†

Since the triple-dipole interaction has an angular dependence, it might account for the crystal structure of the rare gases.

#### SUMMATION OF THE TRIPLE-DIPOLE INTERACTION OVER THE HEXAGONAL CLOSE-PACKED AND THE FACE-CENTERED CUBIC LATTICES

*A. Planning and Computation Procedure.*—For purposes of summation it is convenient to express the triple-dipole interaction energy of three atoms solely in terms of the lengths of the lines joining the three nuclei.  $W_0'''$  is, from Eq. (8),

$$(9) \quad W_0''' = \frac{3/8(a^2+b^2-c^2)(a^2-b^2+c^2)(-a^2+b^2+c^2)+a^2b^2c^2}{r_0^9 a^6 b^6 c^6} (9/16V\alpha^3),$$

with  $R_{12}=ar_0$ ,  $R_{13}=br_0$ ,  $R_{23}=cr_0$ ,

where  $r_0$  is the distance between nearest neighbors.‡ It is convenient to let

$$K = 9/16 \frac{V\alpha^3}{r_0^9}$$

and to then sum  $W'''/K$ , a dimensionless quantity dependent only on the geometry of the lattice. The contribution of the triple-dipole interaction energy to the potential energy of an atom in the lattice is then obtained by choosing one atom, say atom 1, as an origin and letting atoms 2 and 3 be successively all pairs of atoms in the lattice.

It was decided to make use of the lattice symmetry and to sum by pairs of atom layers or planes, for brevity called plane-pairs. To carry out the summation of  $W'''/K$  according to this plan it is necessary to select a suitable system of vectors to represent the lattices.  $W'''/K$  can then be expressed in terms of sets of integers so that the summation becomes purely an algebraic operation. This procedure would be suitable for computing by a desk calculating machine as well as with other digital computers of the automatic type.

To have an adequate estimate of the lattice sum, the summation should extend to 3 or 4  $r_0$  from the atom at the origin. This would

\* Data for the cubic lattice: Lennard-Jones, Proc. Roy. Soc. A107, 636 (1935).

† Data for the hexagonal lattice: Goepfert-Mayer and Kane, J. Chem. Physics 8, 642 (1940).

‡ The subscript 0 is omitted on  $W_0'''$  henceforth.



require summing about 50,000 terms; the corresponding number of multiplication operations is roughly 1,000,000 multiplications. Such a task is too great for the desk calculator; IBM punched-card machines were therefore selected.

Since the face-centered cubic (f.c.c.) lattice as well as the hexagonal close-packed (h.c.p.) lattice can be generated by stacking layers of hexagonally-arrayed atoms, the choice of a set of base vectors was simple.\* Two of these vectors were in the plane of atoms  $z = 0$  and were  $120^\circ$  apart; the third vector was perpendicular to this plane. If atoms 2 and 3 are in the  $m$ th and  $n$ th atom layers above the origin, we speak of these layers as the  $(m,n)$  plane pair. The triple-dipole interaction for an atom at the origin and two other atoms was readily derived from Eq. (9) in terms of these vectors.

The region selected for summation was a cylinder with the  $z$  axis for its axis and extending 4 layers of atoms above and below the plane  $z = 0$ ; the radius was equal to  $\sqrt{10} r_0$ .

The numerical computation of the lattice sum of  $W'''/K$  required on unusual amount of checking. The reason is that the quantity to be obtained, a single number, is the sum of thousands of positive and negative terms.

*B. Results of Computation.*—The lattice sum of  $W'''/K$  for the cylindrical region of altitude  $\sqrt{128/3} r_0$  (corresponding to 9 planes of atoms) and of radius  $\sqrt{10} r_0$  was 56.686334 for the f.c.c. lattice and 56.726933 for the h.c.p. lattice. These values, obtained from the sums for the plane-pairs, are accurate to at least five decimal places.

To obtain some idea of the convergence behavior of the lattice sum as the region of summation is extended in the  $z$ -direction, the sum of  $W'''/K$  for each lattice was determined from the sums for individual plane-pairs for limits for  $n$  and  $m$  of  $\pm 1$ ,  $\pm 2$ ,  $\pm 3$ , and  $\pm 4$ . The corresponding values obtained for the sum of  $W'''/K$  for the f.c.c. lattice are 51.517, 55.880, 56.548, and 56.686; while the corresponding values of the differences between the h.c.p. and f.c.c. lattice sums are 0.0090, 0.0386, 0.0415, and 0.0406. It is noted that the lattice sum is always greater for the h.c.p. structure. From this data the convergence of the lattice sum was examined in a heuristic manner.

It is estimated that the lattice sum for the infinite cubic lattice is between 56.69 and 57.3 and that the difference in the lattice sums for the hexagonal and the cubic lattices is of the order of 0.04.

*C. The Contribution of the Triple-Dipole Interaction to the Cohesion in Crystals of the Rare Gases.*—The calculated values of the triple-dipole interaction,  $W'''$ , per mole for crystals of the rare gases

\* Rice and Teller, *The Structure of Matter*, pp. 131-132.



are shown in Table AIII-1 together with the experimental cohesive energy or heat of sublimation.

The magnitude of the triple-dipole interaction is 2 to 9 per cent of the cohesive energy for the rare gases, and it should be noted as being a repulsion. The difference in the lattice sums of  $W'''$  for the hexagonal close-packed and face-centered cubic lattices is of the order of 0.01 per cent of the cohesive energy and favors the f.c.c. lattice. This difference, however, is too small to explain the crystal structure of the rare gas solids.

How can the crystal structure of the rare gases be explained? One possibility is non-additivity in the van der Waals repulsion. Another possible explanation is a non-additivity arising from interaction between the van der Waals repulsion and the van der Waals attraction, i.e., deformation of the electronic charge cloud resulting from the van der Waals repulsion alters the van der Waals (dipole-dipole, etc.) attraction and vice versa. A third possibility, at least for the elements of low atomic weight, is a difference in the zero-point energy for the two closest-packed crystal structures.\*

TABLE AIII-1  
THE TRIPLE-DIPOLE INTERACTION FOR SOME MOLECULAR CRYSTALS

Element	$\frac{V\alpha^2}{r_0^9}$ <sup>a, b, c</sup>	$W'''$ per mol (Repulsive Interaction) <sup>d</sup>		Heat of Sublimation *	
				$\Delta H$	Temperature
				kilocal per mol	°K
Ne	$10^{-16}$ erg	$10^9$ erg	kilocal	0.51	24.6
A	0.587	0.376	0.009	1.86	84
Kr	6.08	3.89	0.093	2.57	116
Xe	14.95	9.57	0.229	3.59	161
	21.88	14.01	0.335		

<sup>a</sup> Values of  $V$  from Hubbard and Meggers, *Key to the Periodic Chart of Atoms* (W. M. Welch Scientific Co., 1947).

<sup>b</sup> Values of  $r_0$  taken from J. C. Slater, *Introduction to Chemical Physics* (McGraw Hill Book Co., 1939), pp. 416-7.

<sup>c</sup> The values of  $\alpha$  are averages of values listed in *Handbuch d. Physik*, second ed., 24/2, 942.

\* V. Dietz, J. Chem. Physics, 2, 296 (1934).



$${}^aW''' \text{ per mol} = \frac{N_0}{3} \left[ \sum_{\text{lattice}} \frac{W'''}{K} \right] K, \text{ where } K = \frac{9}{16} \frac{V \alpha^3}{r_0^9} \text{ and } N_0 = 6.024 \times 10^{23}.$$

<sup>a</sup>Data derived from values of heats of fusion and vaporization given in *Selected Values of Thermodynamic Properties*, Series II (1947), prepared and distributed by the National Bureau of Standards, Washington, D. C.

#### SUMMARY

The contribution of the energy associated with third-order perturbation theory to van der Waals attractions between atoms was determined for the dipole-dipole part of the interaction potential. The resulting energy corresponds to an interaction between three atoms; hence it is called the triple-dipole interaction. The results also apply to molecules if the latter can be considered as centers of force, i.e., compact molecules whose separation is large compared to molecular dimensions.

The triple-dipole interaction depends on the configuration of the triplet of atoms, being positive (repulsive) for all acute triangles and negative (attractive) for most obtuse triangles.

Because of its dependence on the triplet configuration, the triple-dipole interaction was applied to the problem of the crystal structure of the rare gases. The latter elements crystallize in the face-centered-cubic lattice. The latter is one of two equally close-packed structures, the other being the hexagonal close-packed lattice. The triple-dipole interaction was summed for each of these lattices, the region of summation in each case being a cylinder whose dimensions were about six times the nearest-neighbor distance. The summing involved extensive numerical calculations which were performed on IBM punched-card machines. Since a similar problem had not been handled with these machines heretofore, the computing procedures had to be developed.

The results of the calculations are as follows: The lattice sum of the triple-dipole interaction is about 2 to 9 per cent of the cohesive energy for crystals of neon, argon, krypton, and xenon. The difference in the two lattice sums is of the order of 0.1 per cent of the sum itself and favors the actual structure, namely, the face-centered cubic lattice. However, since the difference in the lattice sums of the triple-dipole interaction is only of the order of 0.01 per cent of the cohesive energy, it is concluded that this interaction cannot account for the crystal structure of the rare gases.



## THE GROWTH OF NATIONALISM IN AMERICAN LITERATURE, 1800 TO 1815

by JAMES HAROLD COBERLY \*

Nationalism is a political or social philosophy that places the good of the nation above all other considerations. A product of the modern world and most noticeably influential in political thinking since the French Revolution, it has been a matter of great concern to statesmen and political philosophers and increasingly a subject for scholarly investigation. One characteristic of this phenomenon has been especially marked—its pertinacity. As a concept of man in society it is based in great part on natural emotional and psychological tendencies that give it an insinuating and pervasive power. Attachment to place, to kind, and to a name—or to a symbol for any of them—is so natural a predilection and so easily extended by the nationalist to embrace the idea of an integrated national life that the process of nationalization now seems to have been inevitable and, so far, appears impossible to stop and even difficult to control. Historians have traced its continuity in the political and economic affairs of America since the Declaration of Independence. But the nationalist does not stop with politics and economics; the national life must also be culturally integrated. It is this aspect of nationalism that has not yet been completely and comprehensively studied.

Enough scholarly work has been produced to demonstrate that literary nationalism at certain times accompanied political and economic nationalism. Cairns' early studies set 1815 as the date for the beginning of an American literature distinguishable as American; although without the terminology and paraphernalia of later students of nationalism his work revealed that a nationalizing process was or had been effective in literature. The more recent studies of McCloskey, Spiller, Spencer, and Clark have made explicit the factor of nationalism in our literature since the War of 1812. But Cole's doctoral dissertation on the beginnings of literary nationalism revealed an enormous amount of nationalistic thought and expression during the first twenty-five years of our national existence, 1775-1800. The logical premise, therefore, was that literary nationalism continued in the years from 1800 to 1815. The present study thus carries on the program of work in nationalism formulated and directed by Bolwell at The George Washington University. Still other investigators in the field of literary and cultural nationalism have made such sound contributions that the importance of this aspect of literary history to a complete understanding of American cultural history is not challenged. Most of these are more widely ranging studies of cultural matters: Curti on education, Mencken on language, Curti and Gabriel

\* A.B. 1933, A.M. 1938, The George Washington University; Ph.D. conferred November 11, 1949.



on American thought, Schneider on American philosophy, Hayes and Kohn on nationalism, Warfel's work on Noah Webster. There are others, but all of them deal with men and ideas and movements that both precede and continue beyond the early years of the nineteenth century. A more detailed examination, limited to the literature of the years 1800-1815, was undertaken in order to add a second period to a history of American literary nationalism. The four categories of the subject, which Bolwell proposed and Cole found practicable, were again used:

- I. Writings concerning Nationalism
- II. Writings concerning the Theme of a National Literature and a National Culture
- III. Nationalistic Literary Exploitation of American Themes
- IV. Cultural Features with Nationalistic Implications.

The first comprises the topic of nationalism itself: the philosophical statement and enunciation of principles. The second division is a consequence of the first: the extension of nationalism into cultural areas and the demand for a national literature to further the cultural integration of the nation. The third collects and sorts the responses to the demand made in the second. The fourth category includes the evidence of nationalism in cultural areas that are related to or that impinge upon literature; it is, in a sense, a supplement to the second category. Because the topic of this study was literary nationalism, neither the total amount nor the complete effect of nationalism was contemplated. Several sources of material such as letters and newspapers, and several areas of thought such as the political and scientific, were intentionally excluded in order to keep the study within the reasonable bounds of periodicals and printed discourses mainly devoted to cultural matters and of volumes of verse, fiction, drama, and essays. The bibliography includes those items that had material bearing upon the topic of nationalism. Perhaps as many more volumes were read and discarded because they contained nothing either pro or con on the subject. No claim is therefore advanced that nationalism was the greatest determining factor in American literature during these first fifteen years of the nineteenth century. The mass of evidence assembled does however indicate that nationalism was one of the considerable forces in American thought.

The period is not remembered for great literary achievement, although a few names retain their place in our cultural history. Freneau and Charles Brockden Brown, Noah Webster, Joel Barlow, and William Dunlap, lived into and through the period and continued their writing. Irving and Bryant began theirs, Irving's *Knickerbocker's History* being the most distinguished and lasting creation. Students and literary historians know of James Kirke Paulding, William Austin, William Ellery Channing, William Wirt, Charles Jared Ingersoll, Timothy



Dwight, and Joseph Dennie, but all, with the exception of Dennie have as great, if not greater, importance outside literature. *Salmagundi* is recalled because of Irving, possibly the *Port Folio* because of Dennie; but few read or remember the Boston magazine, the *Monthly Anthology*, or its numerous contemporaries.

But nationalism implies and connotes totality, the complete integration of all heterogeneous elements into a supreme national whole. It is the degree of success in the attainment of that ideal which has made nationalism so much hated and feared in the twentieth century. Consequently, in the study of this political philosophy, particularly of its penetration into and effect upon literature, it is necessary to look at a great deal of writing, not to confine investigation to the best that has been spoken and written. "Yankee Doodle" reached a hundred persons to the one affected by the occasionally good verse of John Blair Linn. Fourth of July orators reached thousands directly and by way of their printed speeches; the polite essay on taste in the *Monthly Anthology* circulated not much beyond a small group in Boston and Cambridge. A further justification for this research has been the collecting and the sorting and the putting together of materials that have not previously been treated in literary history and that must be treated if the story of literary nationalism is to be complete.

Historically the years were interesting, at least in retrospect. A peaceable sort of revolution was effected in politics, and the squabbling of the ins and outs was carried into the literature. The invective was coarse sometimes but it was virile. The oratorical periods were often classical and full-throated. But it was the thinking that lay behind the public utterance that was vital and is still pertinent. For between the Jeffersonians and the Federalists was being argued the meaning of America, the meaning of democracy and republicanism, the meaning of this new concept of a new man in a revolutionary social and political order. No conclusions were reached, but through the controversy and through the events of those years—war with Tripolitan pirates, purchase of Louisiana, international diablerie, non-intercourse and embargo laws, Napoleonic wars, and another war between England and the United States—the American people were drawn to more concerted thought and action so that in 1815 the nation could feel that it had reached manhood.

The nation was stronger. One of the happiest results of the War of 1812 was the dispersal of a serious factional threat to national unity. When the Essex Junto failed, an arbitrary concept of government was not imposed upon the people. Nationalism was in some measure responsible; not solely political or economic nationalism, because the nationalism of the New England Federalists was as strong as, certainly more totalitarian than, that of Jefferson and Madison. It might be said that one brand prevailed over another. Another factor must have been the



state of mind that the nationalist had been constantly nurturing since the winning of independence from England. In 1783 there was a nation. The components of nationality were also there: a prevailing common language and religion, a dominant racial stock, a heritage of combined action in colonization and in war, and an ideal. But the components were not fused into national unity, and it is noteworthy that the dominant stock with the prevailing language did not forcefully attempt a fusion by subordinating or eliminating other potential nationalities who spoke other languages and held divergent religious beliefs but who had participated in the American experience and shared the same ideal. The process was benevolent and humanitarian as befitted the ideal. Something happened, Crèvecoeur had said, when a man emigrated from Europe. He took a new coloring, a new tone; he became different—he was no longer English, French, Scotch, or German, but American. That was the line of the nationalist. In the virgin wilderness of North America radical social and political thinking had resulted in a new kind of government, sanctioned by God and destined to be the hope of the world. This was unique. The people filling up this realm ought to be as distinctively New World as their Constitution. If there is a distinct American nationality today, it may in great part be the result of certain inevitable natural and social processes, but the nationalist of the early years was in a hurry. He wanted to hasten cultural and social homogeneity as necessary bulwarks to a strong political union; they were in fact interdependent.

The terms of the nationalistic ideology were well established by 1800. The government was a federal structure erected upon democratic, republican principles, but the national ideal was to be paramount to sectional interests and the claims of faction. Cultural homogeneity would increase centralization of power in the national government; it would also stimulate artistic activity that in turn would advertise the success of the American experiment, and by promulgating American ideas fulfill the American mission of being a democratic refuge from feudal Europe. Cultural features such as language and education were a part of the program.

In 1800 the nation was emotionally united in mourning the death of Washington. The election of Jefferson was strenuously contested, but his pronouncement that all were republicans, all federalists, allayed for a time the fear of serious party discord. When it did occur, politics cut across nationalistic lines. Those above or outside the disputes of the political parties inveighed against all factions. That was perhaps the most consistent, if not the most vociferously expressed, attitude found in the periodicals and the orations. The Federalist "outs" attacked the administrations of Jefferson and Madison for their weakness, and through the press and the pulpit advocated measures that were in line



with the total nationalism of Hamilton. Despite the attacks, Jefferson and his party remained in power and, willingly or not, adopted more and more the philosophy of nationalism. The American fleet was sent against Mediterranean pirates, and nationalists hailed its success as a guarantee that the United States could protect its commerce. The acquisition of Louisiana was the first great act to result from the peculiarly American concept of manifest destiny, a concept that was to become one of the most prominent features of nationalism in the later nineteenth century. Here was territory enough for future expansion; too much a few people said, but an optimistic, even grandiose, view of the future was a marked quality among the Americans. In a few years the young War Hawk group in Congress pushed forward a claim to Canada; the slogan "America for the Americans" was becoming a fixture in national thinking. No threat of European influence should be tolerated on the North American continent. Much was made of the geographical position of the United States; isolated from Europe by the Atlantic Ocean, it could promote an autochthonous society and ward off contamination from degenerate, aristocratical governments. "No foreign entanglements" remained the slogan of international policy. Attempts to preserve neutrality by non-intercourse and embargo acts were well-nigh disastrous to the national economy, and by bringing to a climax New England dissension, almost fatal to the union. The disruption of commerce and eventual war with England did promote the growth of native manufacturing, however; and Niles' *Weekly Register* of Baltimore in 1811 took the lead in propagandizing for economic self-sufficiency. The events of the War—the early naval success, the burning of the capital, Jackson's victory at New Orleans—were turned to nationalistic profit. The wave of nationalistic feeling that swept the nation in 1815 was the strongest since the achievement of independence.

While speakers and writers were propagating the doctrines of nationalism, efforts were continued to make the nation culturally respectable and independent. There was general agreement on the desirability of an American literature; there was considerable disagreement on what that literature was or should be. Politics sometimes determined whether support was given to or withheld from obviously American creations, and roughly the Jeffersonians were opposed to the Federalists in literary matters. The traditionalist, the conservative, the Anglophile in literature was most frequently a Federalist in politics—Dennie in Philadelphia and the Monthly Anthology Club in Boston, for example. Joel Barlow and James Kirke Paulding will serve for the opposition. Thomas Green Fessenden, Robert Walsh, and Noah Webster stand somewhere in between. There was never a meeting of minds on more than a few points, the only consistent one being that books should be written and published in America. The traditionalist's standard of taste and excel-



lence was the classicism of the eighteenth century and the sublimity of Milton. By insisting that American writers approximate this standard he probably discouraged some youthful writers, but the periodicals with which he was identified were remarkably open to American poets. The more independent element desired something more, or completely, distinct from the English, but it was either uncertain as to the degree of innovation or incapable of effecting it. An epic poem to complement the grandeur of the Constitution did not materialize, even though Barlow tried again by revising the *Vision of Columbus*. The manner of narrative and depiction showed little change. There was scarcely anything new achieved in the way of form: rhymed couplets predominated in poetry; five-act dramas, copies of European fictional patterns, the formal classical oratory, persisted.

In the several analyses of the condition of American literature and of the causes for its unsatisfactory achievement, the newness of the country was usually cited. Americans had been occupied with forests and Indians, and then with the formation of a government. Youthful in the political sense, they had separated themselves from their English heritage and because of the pressure of practical affairs had devoted no time to literature. The lack of tradition was keenly felt. There was neither governmental nor private patronage. Schools, libraries, and museums were lacking in number and quality. Americans were so intent upon making money that they paid no attention to artistic endeavor. Many would-be artists bemoaned the absence of coffee-house gatherings and literary salons where discussion and association would stimulate activity. It is true that when a coterie of some sort existed literary production was the result: Dennie and his circle, in Philadelphia; Charles Brockden Brown with William Dunlap and Elihu Smith, in New York; the Anthology Club, in Boston.

The replies to these findings and these queries were varied. As concerned taste and decorum, one group said that youthful America must mature by striving for an English standard. The more pronounced nationalists countered with the statement that Americans wrote and spoke as correctly as Englishmen and they adduced as evidence the political writings of the Revolutionary and Constitutional periods and American oratory. The nationalist's answer to the complaint about tradition was to find it in the American past or to create it. In a sense this was necessary if literature was truthfully to reflect America. Of course the body of world literature was accessible, and the poet or dramatist could rework familiar materials. But feudal, aristocratic, monarchical Europe was the antithesis of the free, democratic, republican New World. More and more the nationalist insisted upon and literary men acquiesced in using the American scene. The historians and the societies for the collection of Americana helped. The voyages of dis-



covery, the settlements, the Indians, the leaders and the wars, the making of the Constitution, were stressed as proper literary materials and were more often accorded artistic treatment. Attention was directed to contemporary, near-at-hand scenery, the rivers and mountains and other physical endowments that had all the elementary qualities of like features in Europe, but had also a greater grandeur and sublimity and were distinctly American. Patronage was an aristocratic relic. American writers should be protected by a law of copyright and an impost on imported books. Critics should encourage native writers; the public should support them by buying their books. There were more schools in America than in England and the American people were on the whole better educated than the English, the nationalist said. But there could not be too many schools, and libraries and museums were needed. The over-all effect of such discussion was that it kept alive the subject of an American literature and the wish to create it.

The most interesting and original literary phenomenon in the years after 1800 was the "Paper War" with England. It was the most important feature in the program of creating a distinctive American literature. Provincially sensitive to any criticism, the American was stung by the false reports compiled by foreign travelers. When these accounts were accepted as true and used as the basis of critical attacks by English essayists, he was doubly outraged. The English were further provoked by the satiric retaliations of Royall Tyler, James Kirke Paulding and Jared Ingersoll. The reception the English reviewers gave Ingersoll's *Inchiquin the Jesuits' Letters* brought the critical warfare to high tension at about the same time that a similar stage was reached in the shooting war with England. The replies made by Niles, Paulding, and Timothy Dwight to the English reviewers furnished the strongest evidence that nationalism was as forcefully active in cultural matters as in political. The literary war was not concluded with the War of 1812—Sidney Smith, Mrs. Trollope, Charles Dickens, Emerson, Whitman, and Lowell were yet to make their contributions—but the year 1815 ended on a high note of literary nationalism. The Americans had put themselves in a position where they were forced to produce further justification for their claims. Paulding's statement in particular amounted to a cultural declaration of independence—before Emerson. To what extent the literary production of the 1820's and 1830's was a result of this literary war it is probably impossible to determine. Truly American literature did begin to appear almost at the moment when Sidney Smith was making his famous charge.

The response to the nationalist's demand for a native American literature was large in quantity if not high in quality. It is noticeable that more books appeared bearing the label "an American play," "by an American," "a scene from American history." More novels and dramas



were set in America. American scenery figured more prominently. Niagara Falls, the Hudson and the Potomac, the Alleghenies and the Catskills found their way into poetry and prose. Often the writer pointed out the uniqueness of these physical features and at other times descanted upon the salubrity of the climate and the fertility of the soil. The characters of fiction were given American attributes: the men were ingenious, hardy, freedom-loving; the women virtuous and sensible. Types such as the Yankee and the Revolutionary patriot appeared more frequently. Characters were made to express American sentiments; sometimes foreign personages in a foreign setting expressed the ideals of the American revolution and the glories of democracy. The state of American civilization—its progress, its industry, its towns, and its refinement—was, like the theme of the American Government, a favorite topic for the public orator. Everything that could be praised was given full measure; the future would take care of all deficiencies. America was the Athens and the Rome of the New World. The government was the grandest ever inspired by God and conceived by man. It represented a new order of liberty and equality, the hope of the enslaved of Europe. In the search for materials, writers heeded the advice of the nationalist and found in the records of exploration and colonization, in the accounts of pioneer skirmishes with the Indians, in the events of the French and Indian and the Revolutionary Wars more than he immediately availed himself of. Particularly in fiction and drama the personages and events of the American past became more prominent. Pocahontas and Andre took their places in the growing body of native legend, alongside the more heroic figures of Washington and his military aides. Heroes from the Tripolitan War and from the War of 1812 were quickly worked into national expression. The roll-call of illustrious men was always a feature of the Fourth of July oration. Finally, the concept of America's destiny was held up as the spiritual goal of the American nation and its people. Blessed and sanctioned by God, America had been entrusted with the high mission of formulating and then preserving a new idea of man in society. It was to be an asylum for the oppressed and a beacon of liberty lighting up the entire world. Most of the men and their works are forgotten, but their attempts to supply an indigenous literature were necessary preliminaries to any later, greater expression.

In certain cultural areas allied to literature nationalism also left its mark. The nationalist had realized the advisability of a national system of education that would train the members of a democratic order to assume their responsibilities in that order and that would inculcate in the minds of the young ideas and ideals proper to the American republic. Before 1800 several proposals for such a national system had been made, and agitation continued throughout the years from 1800 to 1815. A



system supported by and under the control of the national government was not achieved; a national university, although establishment of one was strongly advocated, was declared not within the powers delegated to the federal government. But the nationalist continued his insistence that schools teach their students American principles. The errors of aristocratical, monarchical governments were to be pointed out. Schools and colleges should be staffed by American teachers. Young men should not be sent abroad for educational purposes. Textbooks of grammar, spelling, history, and geography were compiled with generous doses of American precept and illustrative incidents from American history.

Prominent in the field of education as teacher and writer of books, Noah Webster was also the leading figure in the nationalizing of language. His first dictionary together with his many utterances on the subject of language was, as Warfel and Mencken have shown, not only a potent factor in the creation of a distinctive American language but also tangible evidence of a linguistic change. He was attacked by the adherents to Johnson's dictionary, but as Paulding declared and as others echoed, the war of independence had given us the right to do what we pleased with the English language.

The interest in cultural societies and in organizations for the collection of Americana persisted. As has been shown their meetings stimulated literary discussion and helped along the cause of American letters. In collecting the documents and preserving the mementos of the American past, the museums and the historical societies were making the American people aware of their heritage and supplying materials for the creator of story and drama. All in all this cultural activity evinced the efforts of the nationalist to create an integrated culture and supplemented his demand for a national literature.

It can be argued, or at least suggested, that the years from 1800 to 1815 were a period of preparation in literary affairs. Two major American writers did their first work before 1815. Several lesser men also made their first appearance. Many of the later great writers of the early nineteenth century were born during these years. If no masterpieces came into being, considerable talent was evident—and a great deal of literary activity, more proportionately than in the twenty-five years preceding. After an examination of the literary periodicals, a great number of orations and sermons, practically all of the volumes of poetry, fiction, and drama, the fact that nationalism was a very considerable factor in this literary expression is certain. When cognizance is taken of the demonstrated literary nationalism in the first years of the nation, 1775-1800, and later, after the War of 1812, the evidence accumulated by the present research warrants the conclusion that there was no hiatus in literary nationalism between 1800 and 1815 but rather that it was a continuous, persistent force.



## FUNCTIONAL ACTIVITY OF THE ZONES OF THE ADRENAL CORTEX AS INDICATED BY STEROID AND ASCORBIC ACID HISTOCHEMISTRY

by HABEEB BACCHUS\*

Much physiological evidence has accumulated to the effect that the anterior pituitary is not directly involved in the vital function (salt-water metabolism) of the cortex (Swann, 1940). On the other hand, evidence has accumulated to the effect that the anterior pituitary is necessary in controlling the gluconeogenic function of the cortex.

Morphological, histological, and histochemical evidence indicate that the glomerular zone is not under the control of the anterior pituitary, but that the inner zones are under such control through ACTH.

Chemical evidence has shown that ACTH produces very characteristic responses on the adrenal cholesterol and ascorbic acid contents. Several non-specific stresses imitate the pattern caused by ACTH. These methods do not supply information on the activity of the separate zones of the cortex following these stresses.

In order to investigate the effect of various stresses on the zones of the adrenal cortex, use was made of weight measurements, histological, histochemical, and cytochemical studies of the adrenal gland. Weight measurements are assumed to be indicative of the size of the gland.

The histochemical and cytochemical methods consisted of detection of steroids and of ascorbic acid in the cortex. As Dempsey stated, histochemical study permits the precise localization of substances in tissues and even in individual cells. In this way it is superior to purely chemical techniques. It is, at the present time, only a qualitative method, but much information can be gained from this type of study.

The following methods were used for detection of steroids. It is important that the whole battery of methods be used (Dempsey and Bassett, 1943), since compounds of no other type have been shown to give positive reactions with all these tests.

1. The Sudan Staining Method. This method indicates the presence of steroids and triglycerides and is, therefore, not specific for steroids. This staining property is dependent on the physical property of solubility of Sudan dyes in lipids, not upon a chemical reaction.

2. The Plasmal Reaction. This reaction indicates the presence of acetals of fatty acids bound with colamine glycerophosphate. The reaction involves the conversion of leuco-fuchsin base (Schiff's reagent) to acid giving a purplish coloration.

3. The Phenylhydrazine Reaction. This reaction was believed to be

\* B.S. 1947, Howard University; M.S. 1948, The George Washington University; Ph.D. conferred February 22, 1950.



specific for corticosterones. The steroid specificity of this reaction has been questioned by Bennett (1940), Gomori (1942), and Albert and Leblond (1946). Tissues immersed in phenylhydrazine salts are expected to give a yellow coloration.

4. The Schultz Reaction. This reaction is an application of the original Lieberman-Burchardt reaction for sterols. Everett (1947) stated that the reaction is limited to diols formed from cholesterol by mild oxidation procedures.

5. The Acetone Solubility Test. Steroids are known to be soluble in acetone. This test was used negatively to evaluate the above tests.

Adrenal tissue was fixed in 10 per cent formalin for 24 hours, washed in tap water for a short period, placed in a phenolated gelatin solution for about 30 hours, then imbedded in 25 per cent gelatin. Gelatin blocks containing tissues were stored indefinitely in 10 per cent formalin. Frozen sections from 15 to 25 micra thick were cut from these blocks and affixed to glass slides following the method proposed by Zwemer (1933). Sections were treated according to the procedures described above.

For the detection of ascorbic acid, the reducing property of the vitamin in an acid medium was used. Adrenals, immediately after excision from the animals, were placed in an acidified silver nitrate solution for one to one and one-half hours in a dark vial at a temperature of 37° C. Excess silver nitrate was washed off with distilled water. The silver in the tissue was "fixed" by placing sodium thiosulfate in the vial for one to one and one-half hours. The tissues were dehydrated in dioxan and imbedded in paraffin blocks from which microtome sections were cut 7 to 8 micra thick. These sections were placed on glass slides, which were cleared in xylene or stained with hematoxylin and eosin or with carmalum.

Rats of the Sprague-Dawley strain were the experimental animals in this investigation. They were submitted to short-term and long-term stresses. The six "unities" were observed in all designs.

The short-term stresses consisted of single injections of epinephrine, 2.5 per cent NaCl, and DOCA, and submission of the animals to a temperature of from 0° to 4° C.

The long-term stresses were: complete starvation for a period of from 2 to 5 days, prolonged "flooding" with NaCl (2.5 per cent) for 8, 15, and 30 days, prolonged "flooding" with KCl (2.5 per cent) for similar periods, prolonged injections of epinephrine (2 per day), and DOCA (1 per day) for 30 days.

At the end of experimental periods animals were anesthetized with evipal. The adrenals were excised, weighed, and treated for histological examination. One adrenal was used for steroid detection and the other for ascorbic acid detection.



Data were presented to indicate:

1. Sudden stresses cause no striking changes in adrenal weight.
2. Depletion of steroids from the inner zones of the cortex occurs after exposure of the animal to sudden stress.
3. The reticular zone is the first zone to be depleted of its steroids when the animal is under a sudden stress.
4. The fascicular zone is depleted of its steroids if the sudden stress is powerful, e.g., exposure to a temperature of from  $0^{\circ}$  to  $4^{\circ}$  C.
5. The glomerular zone is not appreciably affected when the animal is submitted to sudden stress.
6. The marked increase in adrenal weight after the animal is submitted to long-term stress indicates hypertrophy of the adrenal.
7. The hypertrophy noted above is due to widening of the fascicular zone.
8. The adrenals suffer a weight decrease after the animal is submitted to the long-term stress of DOCA.
9. The weight decrease noted above is due to glomerular zone atrophy.
10. The adrenals undergo an increase in weight when the animals are flooded with sodium chloride.
11. The glomerular zone undergoes structural and functional atrophy after the animals are flooded with NaCl for periods of more than fifteen days.
12. The glomerular zone undergoes hypertrophy (and possibly hyperplasia) when the animals are flooded with KCl for prolonged periods.
13. The inner zones of the cortex are not markedly affected by DOCA, NaCl, or KCl stresses.
14. Ascorbic acid present in the cells of a normal adrenal cortex is evenly distributed in the cytoplasm of some cells and is peripherally aggregated under the cell membrane in some cells.
15. Whenever depletion of steroids from any zone occurs to any extent, the ascorbic acid assumes the peripheral aggregation in almost all cells of the affected zone.
16. In an atrophied zone the ascorbic acid is in the form of large clumps.

These data justify the conclusion that ascorbic acid is probably intimately involved in the dynamics of steroid hormone production.

In this investigation the entire course of the General Adaptation Syndrome was observed. Depletion of steroids from the inner cells occurs in the adrenal of an animal submitted to the sudden stress of epinephrine. It is well to note, however, that the cells are of normal sizes. This occurrence is characteristic of the alarm reaction.

Associated with this depletion of steroids in the alarm reaction, ascorbic acid undergoes some change in cytoplasmic distribution. Depending on the severity of the stress, the ascorbic acid may show complete peripheral



aggregation, or many leave the cells altogether. The state of the cells in the alarm reaction is shown in Plate I.

In the adrenal of an animal submitted to epinephrine stress for 8 days, there occurs a widening of the fascicular zone. The inner area of this zone and the reticular zone are completely depleted of steroids. The outer fascicular zone has the normal content of steroids. All cells in the zone show a peripheral aggregation of ascorbic acid. In the inner area much of the ascorbic acid has left the cells. The state of the outer fascicular zone cells is characteristic of the resistance phase of the General Adaptation Syndrome. The inner cells are about to be exhausted. These two conditions are also represented in Plate I.

In the adrenal of an animal submitted to epinephrine stress for 15 days, the fascicular and reticular zones are almost completely depleted of steroids. Most of the cells of the inner areas appear as shown in Plate I ("Exhaustion Phase"). The glomerular zone is not affected by those stresses.

These findings indicate that there is a very intimate involvement of ascorbic acid in the secretion of steroid hormones by the cortex. These findings should throw some light on the relationships described by Long (1947) and Sayers (1948).

The non-involvement of the glomerular zone in conditions involving the fascicular zone and the non-involvement of the fascicular zone in conditions involving the glomerular zone are very striking. This investigation indicates that there is probably some functional significance to the morphological zonation of the cortex. The glomerular zone is more directly involved in mineral balance in the body, whereas, the inner zones are more directly involved in gluconeogenic activity. The implication is that the glomerular zone secretes the "salt-water" hormones, whereas, the inner zones secrete the gluconeogenic hormones.



## ELECTRON OPTICAL EXPLORATION OF SPACE CHARGE IN A CUT-OFF MAGNETRON

by DANIEL LOUIS REVERDIN \*

It has been recognized that the physical conditions inside a magnetron cannot be deduced from external measurements. A suitable probe has to be introduced into the magnetron. The only direct measurement inside a magnetron is reported by Engbert. It consists of inserting into the magnetron a thin tungsten wire probe. It is possible to measure by that method the potential distribution in the tube, but the very critical symmetry of the system may be disturbed. An electron beam is the most convenient probe for the measurement of the unknown space charge field distribution in a magnetron.

Theoretically, the problem has been investigated by numerous workers. Unfortunately, due to the formidable mathematics involved, no exact solution can be obtained. The various simplifications lead to divergent results. The classical theory of Hull further developed by Brillouin and Megaw predicts that the space charge density under cut-off conditions is approximately constant out to the well defined cloud radius. There exist different hypotheses concerning the motion of the electrons constituting this space charge cloud. Both single stream and double stream of electrons have been postulated. Megaw suggests a double stream while Hull and Brillouin suggest that a single stream of electrons form a rotating core of electrons around the cathode. A third theory has been outlined by Gabor, but as yet is incomplete. These theories are discussed and compared with more recent theoretical and experimental investigations. There is a great need for further direct experimental verification.

In this work the main effort is directed toward the experimental measurement of the electric field distribution and on the deduction of the space charge distribution in a cut-off magnetron. Since no method known to us gave the complete answer to the question, the first objective is the development of a convenient method for such a study. An electron optical method for the mapping of otherwise inaccessible electromagnetic fields, called the electron optical shadow method, has been developed at the same laboratory where the present work was carried out. The method has been slightly modified for the exploration of the electric field distribution inside a magnetron. The magnetron was investigated by sending an electron beam axially through the magnetron as a probe. The experiments are carried out in a specially designed elongated cathode ray tube. The main physical components are an electron gun producing

\* Diploma as Physicist 1946, Federal Institute of Technology, Zurich, Switzerland; Ph.D. conferred February 22, 1950.



10 Kev electrons, a Helmholtz coil, the magnetron, two movable wire screens, and a fluorescent screen. The Helmholtz coil serves both as magnetic lens and for the production of the constant magnetic field of 72 gauss for the magnetron. The total length of the optical path is 94 cm.

The magnetron used for this study is of elementary design. The anode cylinder has a diameter of 2 cm. and a length of 3 cm., and is held at a positive potential of 45 volts and 60 volts. The cathode is coaxial and is held at zero potential. Two directly heated cathodes are used; one cathode is a tungsten wire of 0.025 cm. diameter and the other is a tantalum cylinder of 0.2 cm. outside diameter and a wall thickness of from 0.0025 cm. to 0.0035 cm. The magnetron has no end shields. The viewing electron beam and the cathode heating current are pulsed with an appropriate phase shift so that the magnetron is observed while no current is flowing through the filament.

In order to study the trajectories of the electrons in the wide viewing beam, two wire screens are placed in the path of the beam. The shadow pattern cast by these two screens is observed on a fluorescent screen. The technique consists in taking two pictures of the fluorescent screen, one with the unknown electric field, and one without this electric field. The asymptotes of the electron trajectories before and after the object (unknown field) can be determined from the photographed shadow patterns and the geometrical constants of the system, such as the position of both wire screens, object, electron source, and number of meshes per unit length of the wire screens used. Using a relation between conjugate elements of the optical system and straightforward geometric considerations a formula for the deflection angle of the electron trajectories in the unknown field is derived as a function of observed quantities. A practical example of the application of this formula is given.

The relation between the strength of the unknown electric field and the measured deflection angles for the case of the magnetron is deduced. Three cases are considered:

- (a) Motion of electrons in a constant electric field without magnetic field.
- (b) Motion of electrons in crossed constant electric and magnetic fields.
- (c) Motion of electrons in a radial electric field without magnetic field.

Numerically, the experimental values show that the deflection angle of a trajectory in the case (a) is only 3 per cent larger than in the case (b). The error made in computing the deflection angle for a constant electric field (case (a)) instead of computing the deflection angle for a radial electric field (case (c)) is negligible. The deflection angles computed according to the case (b) represent the correct value.



The effect of the electric fringe field of the particular magnetron structure is deduced from a potential map obtained from an electrolytic wedge tank experiment.

The correctness of the method applied to a magnetron without space charge is tested by comparing the deflection angles measured by the electron optical method and the theoretically expected deflection angles. The deflection angles agree within the sensitivity of the method which is better than 5 per cent.

The effect of the electric fringe field for the magnetron with space charge is assumed to be the same as the effect of the electric fringe field for the magnetron without space charge. The error made is believed to be small and the consequence of such an error is discussed. Thus, it is possible to measure experimentally the radial distribution of the electric field in a magnetron with space charge. The electric field distribution in the magnetron operated under cut-off conditions is determined quantitatively in 5 experiments in which the cathode temperature, the cathode radius, and the anode voltage is varied. The change of pattern due to the space charge is very marked. The sharp field change at the cloud radius predicted by Hull's theory is not confirmed.

A very important pattern showing a ring is observed. The presence of this ring is found to be caused by the space charge. This ring pattern reveals the presence of a negative space charge lens. The electric field distribution for this experiment can be determined qualitatively only. A slow rotation of the pattern is also observed and can be explained only by a slow motion of the space charge cloud.

The space charge distribution is computed from the field plots by the use of Poisson's equation. The space charge distribution is found to have three different shapes. The shape of the space charge distribution is found to be in close relationship with the symmetry of the tube:

- (a) If the cathode is very accurately aligned with respect to the anode the space charge distribution appears to have a maximum at a radius corresponding to the theoretical cloud radius.
- (b) If the cathode is slightly displaced with respect to the axis of the magnetron the space charge seems to have a radially falling off distribution with some slight indication of a plateau.
- (c) In the third case the cathode makes an angle with the axis of the tube. The space charge distribution is then not constant in time.

These conclusions are of qualitative nature. The results of the measurements are in disagreement with Hull's theory. The space charge distribution having a maximum at the cloud radius appears to represent the true distribution for an aligned magnetron. An elaborate numerical computation done by Page and Adams has resulted in a similar space charge distribution. This space charge distribution is an indication of the presence of a double stream of electrons. A theory



explaining the mechanism relating the shape of the space charge distribution and the symmetry does not yet exist.

The original theory of the magnetron fails to account for the fact that in all experimental tests a small anode current (excess current) is measured in cut-off conditions. The experiments carried out here seem to confirm the theory of noise amplification of Haeff. The strong noise in the magnetron space charge makes the shadows unsharp. The electron stream would according to this theory also be double stream. Haeff's theory explains not only the presence of excess current but also the fact that all the here observed space charge distributions fall off gradually toward the anode.

The potential distribution computed from the measured field curve corresponding to a gradually falling off space charge distribution is in good agreement with the potential distribution measured earlier by Engbert by a wire probe method. Engbert observes mainly a potential distribution corresponding to a falling off space charge distribution as a result of the asymmetry introduced by adding the probe.

The electron optical mapping of the magnetron field has a relative accuracy of  $\pm 10$  per cent and an absolute accuracy of  $\pm 20$  per cent. The space charge density is affected accordingly with an error of  $\pm 30$  per cent. The main source of errors is the uncertainty of the electric fringe field under space charge conditions. An error caused by the effect of ions is excluded.

The electron optical shadow method is compared with a similar method using a pencil-beam and no optical system. The electron optical shadow method is seen to be more sensitive and to furnish more rapidly a complete field map and this with a greater accuracy. The method is not only suitable for the present and further investigation of the magnetron but also for the study of gas discharges and other space charge problems. The method can also be used for the complete study of electron optical lens characteristics.



## STUDIES IN EXPERIMENTAL INFECTIONS OF ALBINO RATS AND MICE

by HAROLD FRIEDLANDER\*

In a search for a suitable test organism, which would produce an experimental infection in white mice involving lesions in the liver, species from four genera of bacteria have been studied. *Micrococcus pyogenes* var. *aureus* was found to be unsatisfactory for our purposes because it rarely produced observable lesions in the liver; it was not sufficiently virulent for mice; and it caused death from acute toxemia when given in doses large enough to kill all the untreated animals.

A plan was then adopted for isolating pathogenic bacteria from normal laboratory animals. The method consisted of exposing mice by intravenous injection, to the mixed bacterial flora of the intestinal tract and the throat. The suspension of intestinal bacteria was prepared by emulsifying fecal material in broth and passing this mixture through coarse filter paper. The inoculum of throat bacteria was prepared by streaking throat swabs from the animals on appropriate solid culture media and suspending in broth the total growth obtained after a suitable incubation period. The test organism was to be isolated in pure culture from the lesions produced in the mice by inoculation of these suspensions. By use of this method useful species from three genera of bacteria have been isolated from normal animals.

*Salmonella enteritidis* was isolated from the lesions in the livers of mice injected intravenously with a suspension of fecal bacteria from stock white rats. This organism produced a highly uniform experimental infection in white mice when injected intravenously, intraperitoneally, or subcutaneously. Generalized necrosis of the liver was the most prominent feature of the experimental disease. Experiments were carried out to determine the effect of streptomycin, chloromycetin, and aureomycin on the experimental infection in mice. The first two antibiotics delayed the death of the infected mice, but saved none of them. Aureomycin saved 3 out of 10 mice given 4 subcutaneous injections of .100 gm./kgm. per day for 4 days following inoculation of the test organism. The experimental infection showed no detectable response to treatment with sulfones.

A bacillus resembling *Corynebacterium kutscheri* was then isolated by the above mentioned method from throat cultures of normal white mice of the National Institutes of Health general purpose strain. The same organism was also isolated by plate culture from a subcutaneous abscess of a white mouse and from the pus in lung abscesses of three uninocu-

\* B.S. 1934, The College of the City of New York; A.M. 1939, The George Washington University; Ph.D. conferred May 31, 1950.



lated white rats. Isolation of similar organisms from rats has not previously been reported.

This organism is a Gram positive, non-motile bacillus three to six-tenths of a micron in diameter and one to three microns in length. The cells are straight or slightly curved and often club-shaped. Alternate bands of stained and unstained material appear when the cells are treated with Gram or methylene blue stains. Metachromatic granules may be demonstrated by Neisser's stain. Angular and palisade arrangement of the cells is frequent. On blood agar plates the organism produces round, convex colonies about one millimeter in diameter after 48 hours incubation at 37° C. There is a slight greening of the medium. The colonies are white, opaque, and glistening with an even margin and smooth surface. Growth on unenriched nutrient agar is less abundant. In nutrient broth a granular turbidity and heavy sediment appear. No pellicle is formed. Gelatin is not liquified. There is no visible growth on potato. On Loeffler slants there is moderate colorless growth, no peptonization. There is no change in litmus milk and indol is not formed from tryptophane. Nitrite is produced from nitrate. The organism is aerobic. It grows anaerobically in the presence, but not in the absence of carbon dioxide. Esculin and sodium hippurate are hydrolyzed, but arginine is not. Hydrogen sulfide is not produced. The bacillus elaborates catalase. Acid but no gas is produced in broth containing glucose, levulose, maltose, mannose, sucrose, and starch. Salicin may or may not be fermented. No acid is produced from adonitol, amygdaline, arabinose, cellobiose, dextrine, dulcitol, erythritol, galactose, glycerol, inositol, inulin, lactose, mannitol, raffinose, rhamnose, trehalose, and xylose. Growth at 37° C. is more luxuriant than at room temperature. Ammonia is not produced by growth in peptone water. No evidence of toxin production has been obtained.

The organism is virulent for white mice when injected intravenously or intraperitoneally. Subcutaneous injection generally results in a localized abscess which drains and heals. The intravenous L.D. 50 for 20 gm. white mice is approximately 10,000 viable bacilli as determined by plate count. Mice given 200,000 viable bacilli intravenously die in from 3 to 8 days following infection. At autopsy the kidneys show multiple abscesses in which the diphtheroid bacilli may be demonstrated in large numbers by smear and culture. The liver frequently shows one or more localized abscesses. The lungs occasionally show abscesses large enough to be seen without magnification. Gross abscesses in other organs occur occasionally and have been observed in heart muscle, brain, and joints.

Tissue from many of the inoculated animals which died of Corynebacterium infection was submitted for histopathological studies. Microscopic examination of representative specimens of this material



taken during the early stage of the disease revealed that the lung involvement consisted of scattered abscesses containing clumps of bacteria and infiltrated with lymphocytes, monocytes, and a few neutrophils. The kidneys showed scattered abscesses in the cortex and medulla with clumps of bacteria in the lesions and an infiltration of lymphocytes. The spleen showed scattered areas of focal necrosis with clumps of bacteria in the lesions. The liver showed multiple abscesses around the central vein and an infiltration of monocytes. The adrenals showed several small areas of focal necrosis. Heart involvement consisted of scattered areas of necrosis in the myocardium containing masses of bacteria. Lymph gland involvement consisted of an area of focal necrosis and slight edema. When the brain was involved, the sections showed scattered large and small abscesses containing clumps of bacteria and infiltrated with lymphocytes and neutrophils.

The experimental infection of mice with this organism responded well to treatment with streptomycin. The culture had an *in vitro* sensitivity to this compound of one-half microgram per millilitre. Twenty gram white mice were inoculated intravenously with approximately 200,000 viable bacilli as determined by plate count. Immediately following the inoculation a single injection of the drug was given subcutaneously in various doses. There were no deaths in the group receiving 50 mg. of streptomycin per kg. of body weight. All those in the untreated group were dead in seven days. In another similar experiment where smaller doses of the drug were given, the activity of streptomycin was also evident. Fifty per cent of those receiving a single injection of 14 mg. per kg. survived. Twenty per cent of those receiving 6 mg. per kg. survived. All of the controls were dead in 6 days.

An attempt was made to determine the virulence of strain MT-9 of *Corynebacterium* for three other rodents. Rabbits and guinea pigs were found to be immune. The white rat was found to be susceptible when injected intravenously or intraperitoneally.

The intravenous L.D.<sub>50</sub> for 100 gm. rats was approximately 4,000,000 viable bacilli. At this dose those animals which died showed multiple abscesses of the lungs. The pus in these lesions contained the bacilli in large numbers. Many animals also showed abscesses in the kidneys and liver. Polyarthritis occurred in all survivors of the intravenous L.D.<sub>50</sub>. The lesions in the liver and kidneys appeared during the first week after inoculation and were generally not seen in animals autopsied two or more weeks following infection. The abscesses in the lungs persisted for some time and have been observed in animals autopsied two months after infection. They first became evident about 3 days after inoculation as small white dots about 2 mm. in diameter distributed quite uniformly throughout the lungs. The adjacent tissue was generally not inflamed. The size of the abscesses increased with time,



consolidation occurred, and lesions often developed with a diameter of 10 mm. Adhesions to the pleura were quite common. Rats autopsied 4 months following infection showed scar tissue in the lungs where abscesses had apparently healed.

The polyarthritis first appeared 2 days following infection and the joint swellings generally increased to reach a maximum 3 weeks later. The tarsus was most frequently involved, but swellings also occurred in the carpus and joints of the digits. In some cases the arthritis gradually subsided especially where animals had been infected with small doses. In others the arthritis persisted and gradually became worse. Some joints showed calcification and ankylosis. The diphtheroid bacillus was isolated in pure culture from such lesions 5 months after inoculation.

Histopathological studies of tissue from inoculated rats which died of *Corynebacterium* infection showed that the early lesions in the internal organs were quite similar to those found in mice and described above. However, the mice showed joint lesions only occasionally, whereas the rats showed a high incidence of joint involvement. Sections of these joints taken during the early or acute stage of the infection showed moderate edema and proliferation of the capillaries of the joint capsule; periostitis and erosion of the periosteum and endosteal surfaces of bone and articular cartilage; and infiltration of monocytes in the medullary portion of the shaft. Specimens taken later, during the subacute stage of the infection, showed abscesses of the soft tissue of the joint and of the medullary portion of the bone; infiltration of monocytes; thickening of the joint capsule, periostitis, and osteomyelitis. At the beginning of the chronic stage of the infection the joints showed a marked thickening of the joint capsule and partial destruction of articular cartilage. Masses of fibrin, purulent exudate, and bits of bone and cartilage were seen lying in the joint cavity.

A search through the literature on the subject revealed that the first report of a species related to ours was made by Kutscher in 1894. He isolated a bacillus from a caseous abscess in the lung of a mouse which had died spontaneously. He named the organism *Bacillus pseudotuberculosis murium*. It is described in Bergey's Manual under the name *Corynebacterium kutscheri*. The next report was published by Bongert in 1901. This author isolated the organism from mice which had been inoculated with material from horses dying of pneumonia. He felt his organism was not the same as Kutscher's bacillus and named it *Corynethrix pseudotuberculosis murium*. In 1927, Holzhausen reported isolation of a diphtheroid bacillus from mice which had been inoculated with brain emulsion from a rabid dog. This bacillus was highly virulent for mice and was named *Corynebacterium murisepticum*. It is described in Bergey's Manual under that name. In 1930, Condrea reported isolation of a pathogenic diphtheroid bacillus from subcutaneous



nodules of stock mice. He made no reference to the work of Kutscher and Bongert and named his organism *Corynebacterium murium*. In 1931, Fischl, Koech, and Kussat reported isolation of a diphtheroid bacillus from the knee joint of a white mouse from a breeding colony. They named the organism *Corynebacterium arthritidis muris*.

The descriptions of the above mentioned diphtheroids were compared, using the original organism of Kutscher as the standard of reference. A culture labeled *Corynebacterium kutscheri*, obtained from the American Type Culture Collection, was studied to help in establishing relationships.

From comparisons of all these organisms we have concluded that the bacilli described by Kutscher, Condrea, and ourselves are quite similar, but probably not identical. Since the first two strains are no longer available, it is not possible to be sure whether or not the described differences are real or due to the lack of similarity of media and animals used. The bacilli described by Bongert; Holzhausen; and Fischl, Koech, and Kussat appear to have been separate species which have not been reported since by other workers. The bacillus isolated by Professors Topley and Browning, carried by the American Type Culture Collection under the name *Corynebacterium kutscheri*, is quite different from our strains and from all the other diphtheroids mentioned.

We now applied to human subjects the method used to isolate pathogenic diphtheroids from throat cultures of normal mice. Two strains of alpha type streptococci were isolated from the arthritic lesions of mice resulting from intravenous injection of cultures from human throats.

The first organism, designated J.S.T., is Gram positive with spherical or ellipsoidal cells approximately .6 micron in diameter, usually in short chains. On blood agar, after twenty-four hours incubation at 37° C., the colonies are one millimeter in diameter. They are round, white, convex, opaque, with smooth margin and glistening surface. The colonies are surrounded by a zone of alpha hemolysis. After the same incubation period on nutrient agar the colonies are one-half millimeter in diameter. In nutrient broth the organism grows luxuriantly producing uniform turbidity and a moderate amount of sediment. Gelatin is not liquified. Litmus milk is acidified and coagulated. There is no visible growth on potato. Arginine and sodium hippurate are hydrolyzed, but esculin is not. Ammonia is not produced from peptone. Nitrate is reduced to nitrite. Indol and hydrogen sulfide are not formed. The organism is aerobic, facultative anaerobic. Acid but no gas is produced in broth containing dextrin, galactose, glucose, lactose, levulose, maltose, mannose, salicin, starch, sucrose, and trehalose. No acid is formed from adonitol, amygdaline, arabinose, cellobiose, dulcitol, erythritol, glycerol, inositol, inulin, mannitol, raffinose, rhamnose, sorbitol, or xylose. The



organism tolerates 4 per cent of sodium chloride, but is inhibited by .01 per cent methylene blue.

The organism is pathogenic for white mice when injected intravenously or intraperitoneally. The intravenous L.D.<sub>50</sub> for twenty gram mice is approximately five million viable organisms as determined by plate count. At this dose the animals which die show multiple abscesses of the kidneys, a high incidence of abscesses in the heart muscle, and a high incidence of arthritis. The carpus and tarsus are most frequently involved, but arthritis of knee, hip, elbow, and joints of the digits occurs frequently. The organism may be isolated in pure culture from these joints during the first few weeks of the infection. The pus in abscesses produced by this organism has a characteristic orange color. The arthritis of the tarsus and carpus is often observable eighteen hours following the injection. The swelling generally reaches a maximum in one week and gradually subsides thereafter. Arthritis of the hip joint is not generally observable until several weeks after inoculation, but persists longer than the swellings in most of the other joints. The injury to some of the joints is apparently permanent.

The organism is pathogenic for white rats. The L.D.<sub>50</sub> for one hundred gram rats is approximately twenty million viable organisms as determined by plate count. At this dose those animals which die show the same type and distribution of lesions as was described for the white mouse. The arthritis in white rats is similar in nature and distribution to that described for white mice.

Tissue from many of the inoculated mice and rats which died of streptococcus infection was submitted for histopathological studies. Microscopic examination of representative specimens of this material revealed that the kidneys were quite uniformly involved and showed multiple abscesses and numerous clumps of streptococci in the glomeruli and tubules. Heart lesions were quite common and consisted of scattered abscesses containing streptococci in the endocardium and myocardium. Some hearts had extensive lesions in the myocardium at the apex of the heart. Involvement of the other internal organs was rare. It consisted of small areas of focal necrosis in the liver and spleen. The lungs, when attacked, showed a slight serous exudate and infiltration of polymorphonuclear leucocytes in the alveoli and moderate hyperemia.

In the early stage of the infection the joint involvement consisted of abscesses, edema, and proliferation of blood capillaries of the soft tissue; periostitis; abscesses of cartilage and endosteal proliferation. Later during the subacute stage of the infection the joints showed abscesses of soft tissue and muscle with clumps of streptococci; periostitis and bone necrosis. The infections were particularly severe at the metaphysis. In the chronic stage there was marked thickening of the joint capsule; destruction of articular cartilage; marked periostitis; necrosis of the



epiphysis and formation of cartilagenous tissue; calcium deposits and infiltration of polymorphonuclear leucocytes.

The second strain of arthritis producing alpha type streptococcus was designated F.J.H. It is similar to the first strain morphologically, and in all but two biochemical reactions. Strain J.S.T. ferments lactose and produces acid and coagulation in litmus milk. Strain F.J.H. does not ferment lactose and causes no change in litmus milk. The two cultures are different serologically. An antiserum prepared by inoculating rabbits with strain J.S.T. agglutinates that organism to a titre of 1 to 5120. The same antiserum has a titre of 1 to 320 against strain F.J.H. The organisms also differ in virulence for mice and rats.

Strain F.J.H. kills only three out of twenty mice at an intravenous dose of two hundred million viable organisms. The same dose of strain J.S.T. kills all the mice so exposed. The appearance and distribution of joint lesions is similar for both strains. However, the abscesses in the heart muscle produced by strain J.S.T. are generally not caused by strain F.J.H. The second strain is of lower virulence for both rats and mice and produces lesions mainly in the joints and kidneys.



## THE METABOLISM AND PHARMACOLOGICAL ACTIONS OF LITHIUM

by JACK LONDON RADOMSKI\*

Early in 1948 a preparation consisting essentially of a 25 per cent solution of lithium chloride was marketed as a salt substitute. Since lithium chloride tastes very similar to sodium chloride in contrast to the unpleasant metallic taste of potassium chloride, the chief component of most current salt substitutes, this preparation achieved immediate popularity. Because of an almost complete lack of information available in the literature on the pharmacology and toxicology of the lithium ion, concern about the possibility of toxic effects arising from the *ad libitum* use of this preparation led to the initiation of this investigation. The objectives of this study were to determine the toxicity of lithium salts under different dietary conditions, to study the manner in which lithium produces its toxic effects, and to determine its metabolic fate in the animal body.

The determinations of lithium, sodium, and potassium in blood, urine, and tissue were carried out on a Beckman flame photometer. A detailed discussion of the techniques involved in the successful operation of this instrument is included. Further, new and simplified methods for calibration of the instrument and particularly for compensation for the mutual interference effect of sodium and potassium are described.

The acute and subacute toxicity of lithium chloride to dogs and rats and the effect of the sodium content of the diet on the toxicity were determined. It was found that lithium is decidedly more toxic to dogs on a low sodium diet than on a normal diet. On a low sodium diet, death was obtained regularly at oral doses of 50 to 20 mg. per kg. administered daily (except Sunday). These doses were uniformly non-toxic to dogs on a normal diet. Feeding lithium chloride to rats incorporated into both a normal and a low sodium diet revealed that this species is also markedly more susceptible to the effects of lithium administration on a low sodium diet.

The symptoms of intoxication observed in these animals were tremors, lethargy, salivation, bloody stools, anorexia, and weight loss, extreme ematiation, coma, and death. These symptoms were essentially similar in animals on a low salt diet and on a normal diet.

To determine the mechanism by which lithium produces its toxic effects in animals on a low salt diet, groups of dogs were administered daily doses of 50 and 20 mg. per kg. of lithium chloride and 88 mg. per kg. of potassium chloride. The blood and urine chemistry of these animals

\* B.S. 1942, University of Wisconsin; Ph.D. conferred May 31, 1950.



was compared with control dogs on low salt diet. It was found that the dogs receiving lithium chloride exhibited a marked diuresis, maintained a markedly higher level of sodium excretion and somewhat lower level of potassium excretion than the controls or the dogs receiving potassium chloride. As the animals approached death the urine output fell off and approached oliguria, while marked increase in serum potassium and blood nonprotein nitrogen were found. The serum sodium level had a tendency to be irregular, but usually fell to below normal values. Typically, lithium poisoned dogs showed, as death approached, serum potassium levels of 8 to 12 mEq. per liter, serum sodium levels of 110 to 130 mEq. per liter, and serum lithium levels of 4 to 6 mEq. per liter. Calculation of the sodium balance of these dogs revealed that the dogs receiving lithium were in negative balance throughout the experiment and lost a very substantial portion of their body sodium.

Blood level and excretory studies were likewise performed on dogs maintained on a normal diet. Death was obtained in all cases at a daily dosage of 100 mg. per kg. The results obtained with these dogs were similar to the results obtained on dogs receiving lower doses of lithium on a low salt diet. Diuresis was obtained in all cases. The same inability to conserve sodium in combination with anorexia which became very marked at approximately the midpoint of the survival time caused a loss of body sodium comparable to that of dogs on low salt diet. Terminal rises of serum lithium and potassium, and blood non-protein nitrogen were found to occur. Abnormally low serum sodium levels were usually but not always found.

The results of the blood studies on the surviving dogs receiving 50 and 20 mg. per kg. of lithium chloride were all normal.

Electrocardiographic changes were obtained in all the animals receiving toxic doses of lithium chloride. These became marked in the terminal stages of lithium poisoning. The changes found were: increased T-wave amplitude and T-wave inversion, disappearance of P-waves, QRS widening, disorganization of the QRS complex, and bizarre biphasic curves immediately preceding cardiac arrest. All these have been reported in the literature as being characteristic of the electrocardiographic abnormalities associated with potassium intoxication. The changes obtained were correlated with the level of serum potassium in these dogs. Further, injection of enough lithium chloride to yield a blood level of 4 to 5 mEq. per liter, the level usually found in terminal lithium poisoning, did not produce abnormalities of this nature. It was therefore concluded that one of the important causes of death in terminal lithium poisoning is the accumulation of cardiotoxic levels of potassium.

Histological study of the tissues of these animals showed a slight to moderate degree of kidney damage. Usually the damage was confined



to the distal convoluted tubule, the collecting tubule, and the terminal parts of the distal looped tubules. The glomeruli and the proximal tubule were usually normal. The adrenals of both animals receiving lithium and the control dogs on low salt diet showed hyperplasia, particularly of the zona glomerulosa.

The apparent volume of distribution of lithium in dogs, rats, and a monkey after a single intravenous injection have been determined. It was found in these animals that lithium is distributed in a volume approaching the total body water in a manner similar to potassium. These results are in agreement with the results of the analysis of the tissues of dogs poisoned with lithium chloride. It was found that, for the most part, lithium was evenly distributed throughout the organs analyzed. Furthermore, calculation of the lithium concentration per liter of the estimated water content of these tissues revealed a close agreement with the lithium concentration per liter of water of the serum.

Reports in the literature indicated that substantial quantities of lithium are excreted in the feces. Analyses of the feces of dogs and rats receiving lithium chloride revealed the presence of insignificant amounts of lithium. Coupled with the fact that in the dogs receiving subacute doses of lithium chloride virtually all the administered lithium that was not retained in the body was recovered from the urine, these results demonstrate that subacute doses of lithium are completely absorbed and excreted almost entirely in the urine.

Further experiments were carried out in an attempt to further illuminate the mechanism by which lithium produces its toxic effects. It has been demonstrated that lithium intoxicated dogs are incapable of conserving sodium in the presence of a sodium deficiency and have a reduced ability to excrete potassium. Terminally there was evidence of dehydration, hyperkalemia, hyponatremia, and azotemia. Since all these effects are also associated with adrenal insufficiency, it was felt that perhaps lithium exerts its toxic effects by inhibiting the excretion of adrenal cortical hormones. If this be the case, the administration of adrenal cortical extract and/or desoxycorticosterone acetate (DOCA) should produce a dramatic reversal of these toxic effects. This hypothesis was tested, first by administering large doses of DOCA to dogs which had developed the pattern of electrolyte excretion characteristic of lithium poisoning. A second experiment in which both DOCA and adrenal cortical extract were given to dogs receiving 50 mg. per kg. of lithium chloride on low salt diet from the outset of the lithium administration. The development of toxic effects were compared with untreated dogs receiving this dose of lithium chloride on low salt diet. In neither experiment was any change due to the administration of adrenal hormones noted in the pathological pattern of electrolyte excretion or the development of the usual toxic effects of lithium adminis-



tration. The only effect of DOCA administration seemed to be the shortening of the survival time.

One of the most striking features of lithium administration to dogs is the extent to which the accumulation is favored by a low salt diet. The administration of 50 mg. per kg. of lithium chloride daily to dogs on a normal diet produced marked accumulation of lithium in two to six weeks. It was suggested above that the attempted therapeutic administration of DOCA appears to shorten the survival time of lithium poisoned animals. It seemed reasonable that the adrenals of animals on low sodium diet must excrete abnormally large amounts of desoxycorticosterone, to achieve the remarkable conservation of their body sodium which they do. This thesis is supported by the histopathological evidence of adrenal cortical hyperplasia and the development of a lymphopenia in lithium poisoned animals. Therefore, the hypothesis was evolved that the necessity of conserving sodium in a low sodium diet results in an increased secretion of adrenal cortical hormones which is responsible for the increased reabsorption of lithium by the kidney and the accumulation of toxic serum levels of lithium. To test this hypothesis, a dog was placed on 50 mg. per kg. per day, of lithium, and given large daily injections of DOCA. A negative sodium balance and a positive lithium balance were obtained in this animal. Further the animal accumulated a toxic level of lithium and died after exhibiting the typical biochemical manifestations of terminal lithium poisoning. While these results are not yet conclusive, the suggestion is strong that hyper-activity of adrenal cortex may be responsible for the increased susceptibility of animals on sodium restricted diets to the toxic effect of lithium.

Evaluation of the extent of the functional renal impairment by means of the phenolsulfonphthalein excretion test was carried out on lithium intoxicated dogs. It was found that a decrease in the excretion of this dye was detectable considerably before any of the other signs of renal difficulty. In severely poisoned dogs approaching *terminus*, the excretion of phenolsulfonphthalein was very markedly reduced. Thus it appears that the primary site of action of lithium is the production of toxic effects on the renal tubule. In view of the observed loss of much of the body sodium and water in lithium poisoned animals, and the clinical appearance of a dog in the terminal stages of poisoning, it appeared likely that circulatory collapse would contribute to the death of these animals. To evaluate the importance of this contributory mechanism, several dogs in the terminal stages of lithium intoxication were intravenously administered isotonic saline daily. The effect of this therapy was to temporarily improve the animals' condition, lower the blood non-protein nitrogen and the serum potassium somewhat, and



prolong the survival time. However, if lithium administration was continued, the animals still died of typical renal failure.

From the toxicological points of view, the results of this investigation readily explain why the *ad libitum* usage of lithium chloride had occasional toxic results. The lowest level of lithium administered, 20 mg. per kg. per day produced death in 12 to 20 weeks to dogs on low salt diet. This figure translated to a 70 kg. man would be equivalent to the ingestion of but 1.4 gm. per day. Considering the usual level of sodium chloride ingestion by man, it is easy to see how amounts of lithium chloride of this order could be ingested. Furthermore, a large proportion of patients who are placed on low salt diet and a salt substitute prescribed already have impaired kidney function which would undoubtedly favor the increased accumulation of lithium and render their kidneys more susceptible to the effects of this poison. These facts make obvious the unsuitability of lithium compounds as salt substitutes.

It is felt that the history of the use of lithium chloride as a salt substitute points up the dangers inherent in releasing a substance for use on the basis of clinical trials alone without a thorough knowledge of its pharmacology and toxicology which can only be obtained from extensive animal experimentation.



## UNITED STATES PLANT EXPLORERS IN SOUTH AMERICA DURING THE NINETEENTH CENTURY

by WAYNE DAVID RASMUSSEN \*

### NORTH AMERICAN PLANT EXPLORERS IN SOUTH AMERICA PRIOR TO 1800

Prior to 1800, there was little plant exploration by North Americans in South America. The persons interested in botanical exploration or in securing new plants naturally turned their attention to the unexplored North American continent immediately at hand. Nevertheless, there was a certain amount of indirect contact. For example, Orinoco tobacco, the Irish potato, and long-staple cotton, all of which originated in South America, were introduced into the English colonies, as were other plants of lesser importance. Some of the European plants introduced into Spanish America by the Spaniards also found their way into North America.

The outstanding systematic effort to introduce West Indian and Central and South American plants into the English colonies was made from 1732 to 1738 by the trustees of the colony of Georgia. The trustees hired first William Houstoun and then Robert Millar to collect plants for the Public Garden in Savannah. In spite of the difficulties of climate and disease (to which Houstoun succumbed), the lack of adequate transportation, and the obstructions offered by the Spanish officials at Vera Cruz, many seeds and plant specimens were collected. However, nothing of lasting value to Georgian agriculture was sent to the Public Garden. The most important result of the expeditions was that the plant specimens and seeds sent to Philip Miller of the Chelsea Physic Garden were described in his *Gardener's and Botanist's Dictionary* and were distributed to European scholars.

### SAMUEL LATHAM MITCHILL AND A PERIOD OF TRANSITION

The first part of the nineteenth century was a period of transition for plant exploration by United States citizens in South America. It was marked by the beginnings of a true scientific interest: an interest in scientific botany and an interest in more widespread experimentation with new seeds and plants from South America. This interest was essentially a minor phase of the stirrings of intellectual change and advancement that was marked by the establishment of scientific societies and scientific and agricultural journals.

Many persons took an active part in bringing about these advances, but perhaps the transition is best epitomized in the activities of Samuel Latham Mitchill (1764-1831). He was interested in agriculture, botany,

\* A.B. 1937, Montana State University; A.M. 1939, The George Washington University; Ph.D. conferred May 31, 1950.



chemistry, geology, medicine, mineralogy, paleontology, and zoology and made contributions to the advancement of each one of these fields. Mitchill was a member of most of the learned societies of his day and was a moving spirit in the founding of many.

Mitchill made two outstanding contributions towards arousing interest in plant exploration in South America. On December 6, 1813, he delivered an address before the New York Historical Society on writings illustrating the botanical history of North and South America. Then in 1817, Mitchill was instrumental in appointing Jeremy Robinson as agent of the New York Lyceum of Natural History and the *Medical Repository* in South America to facilitate the interchange of information between scientists of the two continents.

Robinson had been appointed an agent of the State Department, and, although his appointment was revoked, he left for South America late in 1817. He spent a short time in Buenos Aires, several months in Peru, and over three years in Chile. Although his work for Mitchill was subordinate to other activities, he did initiate correspondence between Mitchill and several South American scientists, most of whom had some interest in plant life. Robinson, who was interested in botany, also collected seeds of unusual, medicinal, crop, and garden plants and sent them to Mitchill. The most important result of this work was the publication of several articles about and by Peruvian scientists in the *Medical Repository* from 1820 to 1822. Since the *Repository* was a general scientific rather than a purely medical journal, these articles reached most scientists in the United States.

In general, Mitchill's contributions to plant exploration in South America should not be overestimated. Mitchill did typify his generation in science and his work indicated that there was much to be done in the field; more concrete accomplishments were to be made by later specialists.

#### THE SOUTH AMERICAN COMMISSION, 1817-1818

The South American Commission, appointed by President Monroe, was a diplomatic rather than a scientific mission. However, William Baldwin, the naval surgeon accompanying the commission, was a capable botanist and made extensive collections of plants within limited areas. One of the commissioners, Theodorick Bland, was interested in agriculture, and his report contained comments on agriculture in Argentina and Chile. Bland introduced club wheat from Chile into Maryland and neighboring states.

After their return from South America in 1818, the commissioners submitted separate reports to the President since no two could agree on a joint statement. These accounts were reprinted in whole or part in several contemporary newspapers, and many letters written by the



commissioners, Brackenridge, Baldwin, and others accompanying the mission also appeared in periodicals. Brackenridge published a two-volume account of the mission, and Baldwin published a scientific paper with notes on a few of the plants he had collected.

The most important result of the mission so far as its diplomatic and political aspects were concerned was the increased interest aroused regarding South America and its struggle for independence. The scientific results, at least in the long run, were more important. Baldwin's collection of plant specimens was available for study in the Academy of Natural Sciences of Philadelphia, his notes were of assistance to contemporary botanists, and his work aroused scientific interest in South American plants. Although the club wheat imported by Bland did not become a permanent crop in the eastern United States, it assisted in awakening interest in importing improved varieties of plants, an interest that was eventually to mean much to American agriculture.

THE INTRODUCTION OF SEEDS AND PLANTS FROM SOUTH AMERICA,  
1818-1862

The introduction of South American seeds and plants, which was both a result of and a stimulus to plant exploration, was carried on during the period 1818 to 1862 by governmental agencies and private individuals as well as by major expeditions. Governmental activity began with the issuance of directives, the first dated March 26, 1819, to consular and naval officers abroad, urging them to send valuable seeds and plants back to the United States. Results from these directives were limited, in part because there was no official responsible for receiving and distributing such plants. This task was voluntarily assumed by Henry L. Ellsworth, Commissioner of Patents, in 1836. As a result, appropriations were made for collecting and distributing seed, and, in 1862, through a combination of this and other factors, the Department of Agriculture was created. Much of the seed distributed by the Patent Office was procured through commercial channels. Some was obtained by exchange with various countries, including several in South America, and some was contributed by travelers and by naval officers and diplomats stationed abroad. Only one special mission was sent by the Patent Office to South America to secure seeds and cuttings: that of 1856-1857 charged with obtaining sugar cane cuttings from the northern coast of South America.

Naval officers, diplomats, and travelers in South America sent seeds not only to the Patent Office but also to friends, editors of agricultural journals, agricultural societies, and seed firms. Such activities and publicity given them aroused local interest in South America as a possible source of profitable new crops or improved varieties of established plants. Chilean wheat and alfalfa and South American potatoes may be



mentioned as introductions which have been of considerable importance to American agriculture. Other crops, such as arracacha, quinoa, and yerba maté, have never been widely grown in this country. Nevertheless, the exchange of plants and seeds was one form of cultural exchange that reached many persons who were reached by few of the other aspects of inter-American relations.

#### THE UNITED STATES EXPLORING EXPEDITION IN SOUTH AMERICA, 1838-1839

The United States Exploring Expedition, vigorously promoted by Jeremiah N. Reynolds and authorized by Congress in 1836, left the United States on August 10, 1838, under the command of Lieutenant Charles Wilkes, to make scientific explorations of the Pacific and certain other areas. Three of the civilian scientists accompanying the expedition were concerned with plant collecting: Charles Pickering, William Rich, and William D. Brackenridge.

During the last part of 1838 and the first half of 1839, the expedition made stops in Rio de Janeiro, Patagonia, the Strait of Magellan, Valparaiso, and Callao. Plants and seeds were collected, and observations of the flora and agriculture were made at each of these points, while a few trips inland were made from Rio de Janeiro, Valparaiso, and Callao.

The plants and seeds collected in South America were sent back to the United States from Rio de Janeiro and from Callao. The living plants and seeds in this group appear to have been sent to a Philadelphia gardener. Upon the return of the expedition in 1842, William D. Brackenridge was placed in charge of the living plants and seeds brought or sent back by the expedition. As the plants increased and varieties were added from other sources, plants and seeds were made available for distribution by members of Congress, a custom that continued for many years. This collection also formed the basis for the United States Botanic Garden.

The dried plants, representing nearly 10,000 species, were used in preparing the botanical reports of the expedition, and eventually were deposited in the Smithsonian Institution, where they formed the nucleus of the Smithsonian's National Museum herbarium. After many difficulties, three volumes on the botany of the expedition were published.

The United States Exploring Expedition, unappreciated at first, did much to promote scientific study and exploration. It had, however, little measurable effect on inter-American cultural relations, although the first volume of Wilkes' *Narrative*, which had a large circulation, discussed the work of the expedition in South America and offered varied comments on South American life and institutions.



## NAVAL EXPLORING EXPEDITIONS IN SOUTH AMERICA, 1849-1860

From 1849 to 1860, the United States Navy sponsored three major expeditions to South America which carried on some plant exploration and collection work. The expedition under the direction of Lieutenant J. M. Gilliss was charged primarily with making astronomical observations in Chile; that under Lieutenant William L. Herndon with exploring the Amazon River; and that under Lieutenant Thomas J. Page with exploring the La Plata basin.

The United States Naval Astronomical Expedition to the Southern Hemisphere, under Gilliss, was in Chile from 1849 to 1852. Gilliss managed to collect a few botanical specimens, but he was more interested in living seeds and plants. A lively exchange was established between William D. Brackenridge, in charge of the government greenhouse in Washington, and friends of Gilliss in Chile. After Gilliss returned to Washington, he regularly sent books, including the Patent Office reports on agriculture, to Chile and finally arranged for Chile to join in the annual exchange of scientific volumes sponsored by the Smithsonian Institution. Gilliss perhaps did more to initiate lasting cultural exchanges between scientific workers in the United States and Chile than any other one person during the nineteenth century.

The valley of the Amazon was explored by Lieutenant William L. Herndon and Lieutenant Lardner Gibbon from 1851 to 1852. This expedition had been inspired by Matthew Fontaine Maury, who regarded the Amazon valley as a possible new area of settlement for Negro slaves and their white owners of the United States. The reports made by Herndon and Gibbon, however, tempered this enthusiasm. Both Herndon and Gibbon brought back small collections of botanical specimens, seeds, and living plants. The published reports of the expedition contained unusually full accounts of the agriculture of the regions visited. While Maury's urgings and the reports by Herndon and Gibbon aroused much interest in the United States in the possibility of Brazil opening the Amazon River to free international navigation, Brazil was suspicious of the interest of the United States and did not open the river until after the Civil War.

The most extensive of the explorations sponsored by the Navy during this period was carried out under the leadership of Lieutenant Thomas Jefferson Page in the La Plata river system from 1853 to 1856 and from 1859 to 1860. From 1853 until 1855, the expedition was accompanied by Edward Palmer. Palmer and Page collected about five hundred species of plants which were deposited in the National Herbarium of the Smithsonian Institution. While in Paraguay, Page intervened in a quarrel between the United States consul, Edward A. Hopkins, and López, dictator of Paraguay. Subsequently, the *Water Witch*, Page's



ship, was fired upon by a Paraguayan battery. The incident was finally settled peacefully with the aid of a United States fleet. Page published an account of his explorations which was popular enough to call for two editions and several printings.

The reports of all three expeditions were widely circulated and served to draw public attention to South America, while the natural history collections added to our store of knowledge regarding the continent. The reports stood for some years as the most complete available on the areas that they covered.

SCIENTIFIC EXPEDITIONS OF INDIVIDUALS AND LEARNED INSTITUTIONS,  
1852-1877

Non-governmental scientific explorations between 1852 and 1877 resulted in collections of plants from Colombia, Venezuela, and Brazil, several worthwhile accounts of travels, and the introduction of groups of students to scientific work in South America. The period was also marked by the participation of several scientists in more than one expedition.

Isaac Farwell Holton, a professor of natural science, collected plants in Colombia from August 1852 to May 1854. After his return to the United States, he published a volume on his travels, *New Granada: Twenty Months in the Andes*, which contained observations on Colombian vegetation and agriculture and which, from its tone, should have promoted a sympathetic understanding of the Colombian people in the United States.

From 1854 to 1858, except for one visit to the United States, Augustus Fendler, an able professional plant collector, was collecting in Venezuela. His specimens were important additions to the herbariums receiving them.

Louis Agassiz, who was in Brazil with a group of able young assistants from April 1865 until June 1866, while not primarily interested in plants, made a collection of palms for the Museum of Comparative Zoology of Harvard University. He collaborated with his wife on a deservedly popular volume, *A Journey in Brazil*. Agassiz, a true "good-will ambassador," has been credited with influencing the Brazilian government to open the Amazon River to international navigation.

The Lyceum of Natural History of Williams College sponsored an expedition to South America under the leadership of James Orton in 1867. Five students accompanied the expedition. The members were divided into two sections, one proceeding across Venezuela to the Rio Negro and the Amazon, the other crossing the continent from Ecuador to Pará. Both sections collected plants, some of which, at least, were identified by Dr. Asa Gray. Orton described the trip from Guayaquil to Pará in a volume entitled *The Andes and the Amazon; or, Across the*



*Continent of South America.* Two of the Williams College students, H. M. Myers and P. V. N. Myers, described the trip from Venezuela to the Amazon in *Life and Nature under the Tropics*. Orton made two subsequent trips to South America. He died on September 25, 1877, while crossing Lake Titicaca during his third expedition.

The Cornell Exploring Expedition of 1870, sometimes referred to as the Morgan Expedition, was headed by Charles Frederic Hartt, a geologist who had accompanied Agassiz to Brazil, and Albert Nelson Prentiss, a botanist. The two professors succeeded in collecting many specimens for the University Museum and for class use and gave their nine students practical field experience. Four of the students later became naturalists of note, and two spent considerable time in South America. Hartt, like Orton, made additional trips to South America and died in Rio de Janeiro while head of a commission appointed to carry out a geological survey of Brazil.

#### EXPLORATIONS BY INDIVIDUAL SCIENTISTS, 1885-1899

Plant exploration during the last decade and a half of the nineteenth century was marked by a number of important expeditions led by trained scientists and by the organization of a systematic program for plant and seed introduction. The work of Henry Hurd Rusby was of particular importance since it led indirectly to the formulation of a program by N. L. Britton for cooperative botanical exploration in northern South America. Rusby collected in Bolivia from 1885 to 1886, on the lower Orinoco in 1896, in Colombia during 1917, and in Bolivia and Brazil from 1921 to 1922. He made important collections on each of these expeditions and published many articles and books on South American plants and on his travels.

A young naval officer, William E. Safford, collected at various points along the South American coast from 1886 to 1887 and served as World's Columbian Exposition commissioner to Peru and Bolivia from 1891 to 1892. After he resigned from the navy, Safford drew upon the investigations he had made at those times in developing basic studies on the ethnobotany of the ancient inhabitants of South America.

The explorations of Thomas Morong in Paraguay from 1888 to 1890 were inspired by Rusby's earlier work in Bolivia. Morong's expedition was very successful, and he brought back an important collection of plants. Like Rusby, he published several articles on the plants he collected and on his travels.

The Princeton University sponsored three expeditions to Patagonia between 1896 and 1899, all under the leadership of J. B. Hatcher. While the expeditions were concerned primarily with paleontology and geology, Hatcher made plant collections that added to the knowledge of the flora of southern Patagonia.



A notable collection of Colombian plants was made at the turn of the century by Herbert Huntington Smith, assisted, especially with the fungi, by Charles F. Baker. While no publications of general interest resulted from the work, Smith's collection was a notable addition to the herbarium of the New York Botanical Garden and was of value to research workers.

#### THE INTRODUCTION OF SEEDS AND PLANTS FROM SOUTH AMERICA, 1862-1900

Plant and seed introductions by individual travelers and by seedsmen and farm periodical editors during the last part of the century did not receive the publicity that such activities had received in the previous half-century. While many novelties were brought in, no important introductions adding noticeably to the agricultural wealth of the country were made by individuals.

The Department of Agriculture, established by an act of Congress of May 15, 1862, undertook a larger share of the activity. William Saunders, who served in the Department from 1862 until 1900, carried on some work in introducing new seeds and plants throughout the period. This permitted a continuing effort although individual Commissioners and Secretaries of Agriculture came and went. Most of the Commissioners and Secretaries, however, were interested in the work.

Horace Capron, Commissioner of Agriculture from December 5, 1867, to July 31, 1871, inaugurated a system of agricultural exchanges with foreign countries that was of importance both because of the plants exchanged and because the exchange was a new effort in the field of international cooperation. After a few years, the exchanges became a matter of routine. Considerable effort was expended by the Department in introducing and attempting to establish the culture of such tropical crops as cinchona, rubber, and yerba maté. The most important single introduction during the period was the navel orange from Bahia, Brazil.

The closing years of the century witnessed a transition in the governmental work of introducing seeds and plants. A group of able, young botanists, with the support of Secretary of Agriculture James Wilson, developed a new aggressive approach to the problem which led to the establishment in 1898 of the Section of Foreign Seed and Plant Introduction. The Section was established to undertake systematic introductions through experts sent out from the Department. Its aims were the establishment of new plant industries, the discovery and introduction of new varieties of plants already in cultivation, and the collection of species for breeding purposes. The establishment of the Section meant an even greater institutionalization of plant introduction activity. It marked the final culmination in a large-scale cooperative endeavor of a



work that for eighty years had been carried on largely by sporadic individual enterprise.

#### THE CENTURY IN RETROSPECT AND A NEW PERIOD OF TRANSITION

The nineteenth century saw plant collecting in South America by United States plant explorers develop from minor individual efforts at its beginning into major endeavors with its end. The work during the century was dependent upon the interest and initiative of individual scientists and travelers. Much was accomplished, and much remained to be done. The discoveries of the twentieth century, however, were to be made for the most part by careful and planned cooperative work both in the field and in the laboratory. The transition between the nineteenth and twentieth centuries, in so far as it concerned plant collecting in South America, was particularly marked by the establishment of the Section of Foreign Seed and Plant Introduction of the Department of Agriculture in 1898 and by the formulation in 1918 of a plan by several learned institutions for the cooperative botanical exploration of the northern part of South America.

The activities of the plant explorers, brought to public attention by their collections, the introduction of new seeds and plants, and books and articles on their travels and work, served both to advance science and agriculture and to promote better inter-American relations. Several of the explorers did much to promote the exchange of ideas as well as plant materials with South American scientists. Through establishing these exchanges and making South America better known to many persons in the United States, the plant collectors provided some of the factual knowledge that is essential to mutual friendship and understanding in the Americas and demonstrated in a practical way that citizens of the two continents could be of assistance to each other.



## STUDIES ON THE BINDING OF BARBITURATES TO PROTEINS AND ITS POSSIBLE RELATION TO THEIR DISPOSITION AND ACTION IN ANIMALS

by LEO ROBERT GOLDBAUM\*

### INTRODUCTION

Pharmacology, today, is rapidly approaching the problem of drug action at the level where the drug molecules exert their peculiar effect on the chemical reactions taking place in the cell. The exact mechanism of most drug action is still unknown but advances have been made toward the solution of this problem. The evidence to date strongly suggests that most drugs produce an effect through an interaction between drug molecules and a receptor on or inside the cell. These drug receptors are specific proteins, enzymes of a particular system, whose functions are interfered with by the drug combination. The same drug molecule is capable of interaction with other proteins in the body even though its pharmacological activity is concerned with specific enzyme systems. Thus, a drug molecule may interact with a specific receptor protein in the brain causing a sedative effect, with another receptor in the liver resulting in degradation of the drug molecule and finally, it may react with other proteins in the body and produce no demonstrable pharmacological response.

The plasma proteins participate in this latter type of drug-protein interaction. These proteins have been shown to bind, in varying degrees, a large number of small organic molecules as well as inorganic ions. The availability of standardized plasma proteins of known homogeneity has greatly stimulated the study of the fundamental nature of the interaction of small molecules with proteins. Interest has centered on the albumin fraction of the plasma proteins since few drugs are known to bind with plasma globulin. Considerable information is being accumulated on the nature of the binding of drugs to purified serum albumin.

The physiological and pharmacological importance of this interaction has been pointed out by many investigators. It is believed that binding may be an important function of serum albumin in the transport of many substances from one part of the body to another just as hemoglobin carries oxygen. The combination with protein may serve to increase the solubility of water insoluble substances so that they can be carried in higher concentrations through the body. In chemotherapy, serum albumin was shown to inhibit the action of many antiseptics and disinfectants. Such agents as sulfonamides, penicillins, and streptomycin have been found to bind to albumin in varying amounts, thereby affecting their dis-

\* B.S. 1934, Brooklyn College; M.S. 1938, New York University; Ph.D. conferred November 11, 1950.



position and action. Protein binding is important in the concepts of renal physiology. A knowledge of the fractional binding of a substance must be ascertained before the mechanism of its renal excretion can be determined. This interaction also is important in the determination of circulating blood volume by the use of dyes and the estimation of extracellular space by the use of thiocyanate.

It is the purpose of this dissertation to study the binding of a series of substituted barbituric acids by proteins in an attempt to examine some of the factors involved in this interaction, and to correlate this physiochemical property with the *in vitro* and *in vivo* action of these drugs. Substituted barbituric acids are widely used in clinical medicine. More than one hundred substituted barbituric acids have been synthesized and evaluated pharmacologically. It has been found that slight changes in the barbituric acid derivatives significantly affect their action and fate. Such closely related compounds, because of their highly diverse pharmacological activity, are eminently suited for investigations correlating chemical structure and physiochemical properties with pharmacological activity.

#### EXPERIMENTAL

The extent of barbiturate binding to purified crystalline bovine serum albumin, human serum albumin, rabbit plasma, and tissue homogenates was determined by the method of ultrafiltration using the technique described by Lavietes. Studies on the conditions involved in the preparation of ultrafiltrates indicated that this procedure is satisfactory for the determination of the binding of substituted barbituric acids by proteins. The Visking cellulose membrane has the necessary property of preventing the filtration of proteins and not absorbing barbiturates which freely pass through the membrane. The concentration of barbiturate in the ultrafiltrate is determined only by the initial concentration of drug and protein and not by the changes that occur during ultrafiltration. Increase in temperature causes a more rapid rate of filtration without affecting the extent of binding.

A comparison of the binding of 0.001M barbituric acids by 1 per cent bovine serum albumin in M/15 phosphate buffer pH 7.4 shows a linear increase in the fraction bound with lengthening of the substituted alkyl side chain on the five positions of the malonylurea nucleus, increasing from 0.05 for diethyl to 0.65 for n-hexyl ethyl. Replacing one of the ethyl groups with an allyl or bromallyl group increased the fraction bound 0.07 and approximately 0.24 respectively. The introduction of a phenyl group in place of an ethyl group results in only a small increase in binding, approximately 0.15 as compared with an increase of 0.60 for the corresponding six membered alkyl n-hexyl compound. Saturation of both the benzene ring and the aliphatic chain increases the binding. Thio-barbiturates are bound to a much greater extent than their oxygen



analogues. The fraction of thiopental bound is 0.65 compared with 0.37 for its analogue pentobarbital. There is no relation between binding and acid strength since there are only slight differences in the pK's of the substituted barbituric acids. A high correlation exists between polarity and binding. The less polar the barbiturate the greater the binding, which is probably due to the attraction of the substance away from the water phase towards the protein. These findings agree with the suggestion that the primary bond between drug and protein is electrostatic, but the combination is stabilized by van der Waals forces through close approximation of the non-polar residues to similar structures of the adjacent protein surfaces.

A study of the effect of varying pH's on the binding of five representative barbiturates shows a progressive increase in the binding between pH 5.0 to pH 8.0 where a maximum is reached, after which there is a decrease in the binding at the higher pH's. No difference in the binding is noted with phosphate and borate buffers at the same pH. The maximum binding of barbiturates takes place near their pK values which may indicate the importance of the dissociation of these compounds in their interaction with serum albumin.

The binding of substituted barbituric acids by serum albumin appears to be a relatively weak reversible combination. Chloroform can remove barbiturates readily and quantitatively from their combination with serum albumin. Temperature changes have little effect on the binding, indicating that the free energy of the interaction is small.

Goldstein, applying the law of mass action, developed the following expression for the interaction between drug molecules and proteins:

$$r = \frac{n(A)}{K + A}$$

$r$  = moles of bound drug per mole of total protein

$K$  = binding constant

$n$  = the number of receptor groups on each protein molecule

$A$  = the concentration of unbound drug

The binding constants and the number of groups attached to serum albumin can be determined by plotting  $\frac{1}{r}$  against  $\frac{1}{A}$ . Straight lines are

obtained for the five barbiturates studied with slopes  $\frac{K}{n}$  and intercepts  $\frac{1}{n}$ . The intrinsic binding constants are calculated to be approxi-

mately  $1.0 \times 10^{-4}$  for all the barbiturates but the number of attachment groups available on the protein molecule are different for each of the barbiturates studied. Thiopental reacted with 17 groups, secenal 10 groups, pentobarbital 8 groups, phenobarbital 4 groups, and barbital less



than 2 groups. Increasing nonpolarity of the compounds tends to attach to more receptor groups on the albumin molecule with no apparent effect on the binding constants.

The effect of increasing concentrations of barbiturates on the fraction bound by bovine serum albumin shows an increase in the amount of barbiturate bound with a decrease in the fraction bound. As the concentration diminishes, the fractions bound tend to approach unity. At the relatively low blood and tissue levels encountered in pharmacology and chemical therapeutics (approximately  $2.5 \times 10^{-4}$  M), the fractions of these barbiturates bound by one per cent serum albumin are thiopental 0.80, seconal 0.56, pentobarbital 0.47, phenobarbital 0.27, barbital 0.14. Similarly, as the concentration of albumin increases, the fraction of barbiturate bound also approaches a maximum. At the serum albumin concentrations normally present in the blood of animals and humans (approximately 3 to 5 per cent), the fraction bound is nearly maximal for the five barbiturates. The binding of  $5 \times 10^{-4}$  M barbiturates by rabbit plasma containing approximately 3 per cent albumin shows that thiopental is 0.85 bound, seconal 0.64, pentobarbital 0.51, phenobarbital 0.41, barbital 0.16. Although at low albumin concentrations the binding of barbiturates does increase rapidly, above 3 per cent a further increase in albumin produces only a small increase in the binding. Small variations in the normal serum albumin will have only a slight effect on the binding. In pathological cases where very low or very high serum albumin concentrations may occur, there is the possibility of an effect on the binding and on the distribution and action of these drugs. A comparison of the binding of thiopental by human and bovine serum albumin shows almost identical binding.

Alterations can occur in the binding of barbiturates by the introduction of other substances into the system. Thiopental, a strongly bound barbiturate, is capable of displacing both seconal and pentobarbital from its combinations with albumin. The latter barbiturates have only a slight effect on the thiopental binding. The ability of a structurally dissimilar organic anion, sodium lauryl sulfonate, to displace thiopental is similar to Karush's finding that a long chain alkyl sulfate could displace a carboxylic azo dye. Increasing molarities of phosphate buffer cause an increase in the binding of thiopental by serum albumin from 0.70 at 0.066 M to 0.80 at 0.60 M. There is no change in the binding of thiopental in solutions containing 1, 2, or 3 per cent sodium chloride.

If drug binding plays an important part in the distribution, excretion, and metabolism of drugs, then any alteration of this combination may affect the pharmacological properties of the drug. For example, a compound that will displace barbiturate from its combination with serum albumin but is not readily diffusible across the vascular membrane, will increase its concentration in the extracellular fluid compartment and



present the tissues with an increased amount of barbiturate. If the displacing compound is not retained in the blood stream but readily penetrates intracellularly, it may interfere with the binding of barbiturates by the tissue proteins as well as serum albumin. Such interference with barbiturate binding may be the explanation for the prolongation of barbiturate anesthesia recently reported by such compounds as carinamide and some detergents. Brodie recently reported that a lowering of the pH of the blood of a dog by the inhalation of high concentrations of  $\text{CO}_2$  caused a lowering of the thiopental concentration in the blood which returned to its former level when the pH of the blood was again normal. Since binding of thiopental can be affected by pH changes, this shift in thiopental distribution may be attributed to alteration of the thiopental-protein interaction. Similar competitive binding for proteins may be involved in the effect of carinamide on penicillin excretion and with hippuran and diodrast on phenol red excretion.

Because of the complex composition of tissue homogenates, no information concerning the absolute nature of the binding can be determined. However, a comparison can be made of the relative abilities of different tissues to bind substituted barbituric acids. The following relationships are observed:

(1) When the binding of the plasma is compared with similar concentrations of purified serum albumin, the binding can be accounted for by the albumin fraction. The plasma binding of thiopental is slightly higher than the binding of similar concentrations of serum albumin. The additional binding is probably contributed by the globulin fraction. With the other barbiturates, the plasma binding is lower than that of the bovine serum albumin. The binding by the other protein fractions is probably so small that the contribution to the plasma binding is insignificant.

(2) All the tissues investigated are capable of binding barbiturates. The amount of serum albumin in the tissues homogenates can contribute only a moderate fraction to the total binding. For all the barbiturates except thiopental, the ability of the various tissues to bind barbiturates is highest in the liver, followed by plasma, heart, kidney, lung, brain, muscle, and red cells. Thiopental differs from the others by being bound to a greater extent by plasma than by liver. This again is probably due to the additional binding of thiopental by the globulin fraction of the plasma.

(3) The relative bindings of the five barbiturates by the tissues are similar to those obtained with purified bovine serum albumin. This indicates a drug-protein interaction taking place in the tissues similar to that which occurs with serum albumin. Since enzymes comprise some of the protein concentration of the tissues, the binding by tissues homogenates may reflect the binding of barbiturates on enzymes. Thus the



various barbiturates may be bound in the same relative proportions on the specific enzyme systems responsible for the pharmacological action of these drugs.

A study of the distribution of barbiturates in the rabbit was made with five representative barbiturates that were bound in varying degrees to serum albumin and tissue homogenates. Thus, a comparison can be made on the effect this property may have on the distribution of these drugs in the various tissues of the body and, if possible, on their pharmacological activity. The results of the distribution of five barbiturates under similar conditions of dose and time intervals after administration show that the strongly bound barbiturates (thiopental, seconal, and pentobarbital) tend to concentrate in the tissues while the weakly bound barbiturates (phenobarbital and barbital) distribute themselves primarily in the body water. For example, the seconal plasma level is approximately one-third the liver level and is much lower than all the other tissues except muscle. The barbital plasma level is approximately equal to the liver level and higher than all the other tissues. The strongly bound barbiturates localize in those organs that were found to have the greatest affinity for barbiturates. The liver has the highest concentration followed by heart, kidney, lung, brain, and muscle. This same pattern of distribution tends to persist at the longer time intervals after the administration of these drugs.

The weakly bound phenobarbital and barbital are found in relatively low concentrations in the brain. This may account for the inability of these barbiturates to produce narcosis at these doses. There is an increase in brain concentration with time and a decrease in the plasma to brain ratios after one hour. This may be an explanation for their slower onset of anesthesia and their long duration of action. On the other hand, the strongly bound barbiturates (thiopental, seconal, and pentobarbital) rapidly attain high brain concentrations. This results in deep anesthesia. There is only a decrease in the brain concentration with time and no change in plasma to brain ratios. The potency of these strongly bound barbiturates is not due merely to the high concentration in the central nervous system, for even the brain barbiturate levels which produce little or no effect with barbital and phenobarbital cause intense narcosis. The brain levels of the five barbiturates after one hour indicate that there will be an inverse relationship between binding and potency as shown by the awakening levels. The strongly bound barbiturates are more effective at lower brain concentrations as well as lower blood levels. There also appears to be a direct correlation between the rate at which the barbiturate concentration decreases in the blood and tissues and their binding to proteins.

The relationship between chemical structure, physical properties, and pharmacological action of a large number of substituted barbiturates has



been extensively investigated. A close parallelism is found between some of the physical properties such as solubility in water, oil to water distribution, and carbon atoms on the alkyl side chain. All these properties have been related to the mechanism of anesthetic action.

In an attempt to relate structure to the pharmacological action of substituted barbiturates, Swanson studied the effect of substitution in minimal anesthetic dose and duration of action. He found that an increase in the length of one or both of the substituent alkyl side chains resulted in an increased anesthetic potency with a shorter duration of action. Others have shown that allyl and bromallyl linkages also enhance potency. The replacement of oxygen by sulfur in the urea portion of the barbituric acid nucleus gave rise to powerful anesthetics which are ultra short-acting. Studies have been made on the relation of chemical structure to the concentration of various barbiturates needed to produce 50 per cent inhibition of *Arbacia* egg cell division, 50 per cent inhibition of rat brain cortex oxygen consumption, the rate of destruction by liver slices *in vitro*, and the time of onset of anesthesia. There is a close parallel of all these studies to the fraction bound by serum albumin.

The relationship between binding and inhibition of brain tissue respiration indicates that barbiturates are bound to the specific enzyme system which brings about narcosis in the same relative amounts in which they are bound to tissue homogenates and serum albumin.

Since combination with enzymes is generally considered an important phase in enzymatic action, those barbiturates that are most strongly bound to proteins should produce the greatest effect on enzyme systems. There should be a corresponding increase in inhibition of those enzymes involved in tissue respiration and an increase in breakdown with those enzymes involved in metabolism. Thus, it is found that the strongly bound barbiturates are the most potent, have the lowest  $AD_{50}$  and  $LD_{50}$ , require the lowest concentration to produce inhibition of *Arbacia* egg cell division and inhibition of rat brain cortex oxygen consumption, and have the shortest delay in onset of anesthesia. These activities appear to involve the enzymes in the central nervous system that are inhibited by barbiturates. A close relation between the fraction bound and the breakdown in the animal body also is found. The strongly bound barbiturates are destroyed most rapidly by liver slices and have the shortest duration of action. Therefore, it appears that increased binding to the enzyme system, whose function is related to metabolism of these drugs, causes increased rate of destruction resulting in shorter duration of action.

#### CONCLUSION

Drug-protein interaction is important in considering the disposition and action of barbiturates. There are many receptors in the body avail-



able for their binding. Plasma proteins may be considered as secondary receptors whose combinations with barbiturates play a role in their distribution. There are other important receptors in the body as shown by the studies of tissue binding. Some of these proteins are enzyme systems, whose action is influenced by the barbiturate combination causing characteristic pharmacological responses. Combination with other enzymes results in the degradation of the drug. Other receptors act like plasma proteins and are involved in the distribution and release of these drugs to the enzyme receptors. Thus, it is found that the strongly bound barbiturates are the most potent and are destroyed most rapidly in the body.

The study of the relative binding of a series of substituted barbituric acids and their distribution in the rabbit indicates the importance of this interaction in the distribution of these drugs. The strongly bound barbiturates tend to concentrate in the tissues while the weakly bound barbiturates distribute themselves primarily in the body water. Information concerning the nature of the interaction between barbiturates and purified serum albumin and the factors effecting this interaction may be useful in the understanding of drug-enzyme reactions. The striking parallelism between this property and the *in vitro* and *in vivo* action of barbiturates emphasizes this close relationship. In the preparation of new barbiturates as well as other drugs, this property of drug-binding should be considered.



# THE RELATIONSHIP OF SKELETAL MUSCLE TONE TO CAROTID BLOOD PRESSURE

by JAMES THOMAS HICKS \*

## INTRODUCTION

The following study was undertaken to show the ability of the artificially stimulated mammalian nerve-muscle preparation, *in situ*, to develop and maintain tetanic contraction following the intravenous injection of agents which alter the general blood pressure.

Data have been obtained which indicate a relationship between general blood pressure, as measured directly from the carotid artery, and the amount of tension developed by the soleus and gastrocnemius muscles of the cat.

The interrelationship between general blood pressure and muscle tension was tested under the influence of epinephrine, mecholyl, histamine, pitressin, and bacterial polysaccharide.

The ability of skeletal muscle to maintain posture is an important function that depends, among other things, upon its ability to resist fatigue. It has been shown, in the intact animal, that this ability is chiefly dependent upon receiving impulses from repetitively firing motor units.

Adrian and Bronk stimulated the nerves to the hind limb of the cat and found that with low frequency of stimuli, feeble contractions were obtained, while with higher frequencies, stronger contractions were observed. Stimulation of the gastrocnemius at 10/sec. gave a tension of 1.3 grams, but a stimulation of 100/sec. gave a tension of 1.8 grams.

Cooper and Eccles, working with the gastrocnemius of the cat found that the fusion rate was 100/sec. but that steady posture could be obtained with rates as low as 16/sec. when they were recording isometrically.

Briscoe and Leyshon were among the first to employ the neon tube stimulator. Briscoe investigated means for obtaining prolonged contraction of muscle. She found three essential things necessary to produce prolonged postural contraction by electrical stimulation (1) low rate of stimulation, (2) depth of anesthesia in which the corneal reflex is still present, and (3) adequate blood supply to the muscles.

Davis and Davis, using similar methods, found that the soleus muscle of the cat gave a nearly fused tetanus at a stimulus frequency of 20/sec. They found that the more rapid the stimulation, the lower was the tension level.

Adrian and Bronk recognized the importance of the "massaging" action

\* A.B., B.S. 1945, M.S. 1946, University of Pittsburgh; Ph.D. conferred November 11, 1950.



of the intermittent contractions of the individual fibers upon blood supply to the muscle.

Briscoe found that if occlusion of a vessel takes place after a muscle has been put into contraction, the posture gives way gradually after a delay of a few seconds.

Leese and Davis found that at any frequency maintained between 18 and 60 stimuli per second, the level of muscle tension is a function of carotid pressure. Tension of muscle was found to be low, under 100 mm. of mercury blood pressure in the carotid artery, and it was not influenced by changes in frequency of stimulation. They found that an increase of blood pressure of from 100 to 160 mm. of mercury, increased tension as much as 100 per cent. Above 160 mm. of pressure the tension level decreased.

The property of mecholyl to lower the blood pressure was first investigated by Hunt and Traveau. It was found that mecholyl caused parasympathetic stimulation with cardiac inhibition and peripheral vasodilatation involving nearly all blood vessels.

In 1928, Kam and his associates separated the pressor fraction from the other components of the posterior pituitary. This substance, pitressin, when injected into animals causes a rise in blood pressure by acting directly on the arterial musculature to cause vasoconstriction.

Dale and Richards found that histamine caused a decrease in blood pressure due to the dilatation and increased permeability of the capillaries. The blood pressure was lowered solely by the action on the vascular bed since histamine has no direct cardiac action.

Oliver and Schaefer were among the first to note that epinephrine caused a rise in blood pressure. The action of epinephrine upon blood pressure was found to be variable depending upon the dose used. E. E. Nelson found that small doses of epinephrine, 1:100,000, caused a passive dilatation in the leg vessels. Hartman and Evans found that, in the cat, constriction of the capillaries was rare with doses of epinephrine as large as 0.5 cc. of 1:10,000. It is commonly observed that epinephrine in dosages of 1:1,000 causes constriction of all peripheral vessels, including the veins.

#### METHODS AND MATERIALS

The experiment was conducted in two sections—one group of cats was under the influence of nembutal anesthesia; the other consisted of decerebrate preparations. The latter were given ether anesthesia long enough for decerebration to be accomplished.

The cats were both male and female, weighing between  $3\frac{1}{2}$  and 4 kilograms. The ages of the cats could not be determined. The animals given nembutal anesthesia were all anesthetized to about the same plane of anesthesia. The corneal reflex was intact.



The animals were tied to a cat board and the carotid artery was cannulated so that blood pressure could be measured directly by means of a mercury manometer. The jugular vein was cannulated and the cannula attached to a 0.85 per cent saline reservoir so that drugs could be administered easily and all washed into the vein with an equal volume of saline.

The sciatic nerve was dissected free and cut as close to its appearance through the greater sciatic foramina as possible. The nerve was pulled through a bakelite tube containing two stimulating electrodes. The electrodes were attached by means of wires to a helium discharge stimulator. This stimulator gave a constant frequency output of 30 stimuli per second throughout all the experiments. The gastrocnemius and soleus muscles on the ipsilateral leg were dissected free and attached to isometric muscle levers. The brass isometric levers were designed by Dr. C. E. Leese.

The muscle tensions, the blood pressure, and the timer were all recorded on a Phipps-Bird electric kymograph.

A three-way Jackson wash-out paraffin-lined cannula with a  $1\frac{1}{2}$  mm. opening on the arterial side was attached to the carotid artery. One end was attached to the rubber tubing coming from the manometer, the other end was attached to a small hose so that the cannula could be washed out if a clot should occur.

Epinephrine was prepared in dilutions of 1:1,000; 1:10,000; and 1:100,000. It was administered by inserting a needle attached to a syringe into the rubber tubing connecting the saline reservoir and the jugular cannula. The drug was washed in with 5 cc. of saline.

The other agents used were prepared in the following dilutions: mecloyl 1:1,000,000; histamine 1:25,000; and pitressin 1 unit per cc. of normal saline. Each drug was administered by the same technique described for epinephrine.

In order to measure, objectively, the corresponding muscle contraction curves and blood pressure curve areas, an engineer's planimeter manufactured by the Keuffel and Esser Co. was utilized. This instrument permits the areas under irregular curves to be measured in square centimeters. A constant abscissa of two minutes was employed for corresponding muscle and blood pressure curve areas.

To show a correlation between normal blood pressures and normal areas of muscle contraction, the procedure outlined in Snedacor's Statistical Method was followed. For an over-all evaluation of the evidence gathered by using normal and drug effected blood pressures and areas of muscle contraction, the difference-mean as outlined in Albritton's "Experimental Design and Judgment of Evidence" was used.



## RESULTS

The data collected were obtained from 25 male and female cats which weighed from  $3\frac{1}{2}$  to 4 kilograms. The ages of the cats could not be determined. Decerebration was used in the early experiments to see if nembutal anesthesia had any effect upon blood pressure areas and muscle contraction areas. Nembutal values did not seem to be different from the decerebrate values so decerebration was discontinued.

To test for correlation between blood pressure and muscle contraction, the blood pressure areas and isometric muscle contraction areas obtained on kymograph records were subjected to measurement by means of a planimeter which converted the area to square centimeters. The gastrocnemius and soleus contraction areas, which had been obtained by a stimuli of constant frequency and strength, were subjected to correlation analysis together with blood pressure values. The "r" value was found to be 0.281, which is highly significant. The correlation was found to be positive between the two factors tested for correlation.

After determining the correlation between normal blood pressures and areas of muscle contraction, the correlation between the blood pressure that had been increased by pitressin and the muscle contraction areas under the influence of pitressin was determined. Testing 23 injection results from 15 animals, it was found in correlation analysis that "r" was 0.57. This is highly significant. A positive correlation was also noted. The mean-difference method as outlined by Albritton was used to determine if the increase in muscle tension areas was statistically significant. The muscle contraction areas were used since it has been established that pitressin constantly, in one unit dosages, causes an increase in blood pressure. It was therefore advisable to see if this increased blood pressure also brought about a statistically significant increase in area of muscle contraction. It is highly significant.  $\frac{1}{2}P$  was found to be less than 0.5 per cent and rules out a chance relationship.

Mecholyl was administered to see if the correlation and mean-difference existed between the blood pressure and muscle contraction area when the blood pressure was lowered. Testing 24 injection results from 10 animals, it was found that in the correlation analysis, "r" was equal to 0.820 which is highly significant. A positive correlation was also noted.

Testing the same number of experiments and animals using the mean-difference, it was found that P was equal to less than 0.5 per cent, indicating that the muscle contraction area was reduced significantly from the normal by decreasing the blood pressure.

The correlation and mean-difference values were calculated for epinephrine, using the blood pressure and muscle contraction areas.



Testing 44 injection results on 20 animals, it was found that "r" was equal to 0.795, which indicates that there is a correlation between blood pressure and muscle area under the influence of epinephrine. A positive correlation was found.

Testing the same data for the mean-difference, the  $\frac{1}{2}P$  value for muscle contraction areas under the influence of epinephrine, 1:100,000, was found to be less than 0.5 per cent, indicating that the results were caused by the agent and not due to chance.

$\frac{1}{2}P$  for the muscle contraction areas under the influence of epinephrine 1:10,000 was found to be less than 0.5 per cent, which is very significant. This indicates that the values obtained were due to the agents and not due to chance.

$\frac{1}{2}P$  for the muscle contraction area under the influence of the 1:1,000 epinephrine was found to be less than 2.5 per cent and therefore significant. This indicates that the change was due to the agent and not due to chance.

The mean-difference calculations show that the muscle contraction areas were significantly altered by the epinephrine-induced changes in blood pressure.

Polysaccharide-25 was administered in the same manner as described for the other drugs, and the data were treated similarly.

Testing 27 injection results from 15 animals, it was found in the correlation analysis that "r" was equal to 0.29, which is insignificant. This was probably due to the fact that P-25 gave a fluctuating blood pressure record.

Testing the same number of experiments and animals using the mean-difference, it was found that  $\frac{1}{2}P$  was greater than 2.5 per cent and therefore not significant.

This indicates that the muscle area was not changed significantly from the normal by decreasing the blood pressure.

The femoral artery, which is the source of blood supply to the gastrocnemius and soleus muscles was clamped for various time intervals before the muscles were stimulated to show more clearly the effect of lack of blood flow upon muscle tension. No measurements were made of the contraction areas with a planimeter since the visual effects were striking. The tension diminished steadily until the blood supply had been cut off for about six minutes when the muscle then failed to respond.

The following illustrations show the comparative effects of various agents used in this study on blood pressure and muscle areas.

Vagal stimulation was contemplated as a method for lowering the blood pressure but this was discontinued because vagal stimulation for two minutes in cats caused too much variation in the pressure curves, making comparable results difficult.



## DISCUSSION AND CONCLUSIONS

Testing the hypothesis of Leese and others (10) that blood pressure affects muscle tone, 153 normal tests were made on 25 cats. The carotid blood pressures were measured over the same two minutes as the isometric contractions of the soleus and gastrocnemius muscles. The area of the blood pressure and muscle tensions were measured on a chart using an engineer's planimeter so that common values in square centimeters could be obtained. This gave a positive correlation when subjected to the correlation method outlined by Snedacor (24). The correlation coefficient "r" was found to be 0.281, which is significant.

Having established that normally there is a positive correlation between blood pressure and muscle area, it was decided to alter the blood pressure experimentally to see if the positive correlation continued under varied conditions.

Parke-Davis pitressin was administered in dosages of 1 unit to bring about a rise in blood pressure. A rise was noted in all 23 cases. An increase in muscle contraction area was noted in all cases. The correlation between the blood pressure values under the influence of pitressin, and muscle contraction areas gave a coefficient of 0.57, which is significant, and shows a positive correlation. The areas of muscle tension before and after the administration of pitressin were compared by the mean-difference statistical method. The increase in muscle tension area was found to be definitely significant as  $\frac{1}{2}P$  was less than 0.5 per cent, indicating the change was due to the agent and not due to chance. This increase in muscle tension area is attributed to the increased blood flow through the muscle which removes the metabolites and in this manner enables the muscle to resist fatigue. Goodman and Gilman state that the principal peripheral action of pitressin is to constrict the capillaries, and to some extent the arterioles (14). This may increase the blood flow passing through the muscles temporarily. This increase seemingly offsets the constriction of the capillaries so that metabolites are being removed at an increased rate, thus causing the muscle to resist fatigue during the 2 minute period of observation. The initial slowing of the heart (14) did not seem to affect the ability of the muscle to resist fatigue as apparently the cardiac slowing had been offset by the increased flow through the veins from the constricted arterioles. Anesthetics, even in moderate doses, seem to depress the cardiac reflexes so that the peripheral vascular effect seems to overcome the cardiac slowing (14).

Histamine, 1:25,000, was administered in 1 cc. dosages to bring about a fall in blood pressure. A fall in blood pressure was noted due to the direct action of the histamine on the dilator mechanisms of the capillaries of the body. A slight arteriolar constriction is said to occur in cats but this seems to potentiate the effect of the fluid leaving the capillaries. This constriction is very slight as a fall in



blood pressure to a low level was observed in all cases. The heart rate immediately after injection remains normal but the fall in blood pressure causes a reflex acceleration. This cardiac acceleration is not sufficient to overcome the fall in blood pressure during the two minute period of muscle stimulation. A decrease in muscle tension values, under the influence of histamine was noted in all cases. The correlation coefficient between blood pressure area and muscle contraction area values under the influence of histamine was found to be 0.55 which is significant, and shows a positive correlation. The muscle-tension areas before and after the administration of histamine was compared by the mean-difference statistical method. The decrease in muscle tension areas was found to be significant as  $\frac{1}{2}P$  was less than 0.5 per cent, indicating the changes were due to the agent and not chance. This decrease in muscle tension area is attributed to the low blood pressure which causes low blood flow through the muscle, thus allowing the metabolites to accumulate and increase the susceptibility of the muscle to fatigue. It is true that there is a capillary dilation but as is known, histamine tends to stagnate blood in the vessels. This stagnation or slowing of blood flow seemingly offsets the capillary dilatation to such an extent that the muscle readily succumbs to fatigue.

Mecholyl, 1:1,000,000 was administered in 1 cc. dosages to bring about a fall in blood pressure. A fall in blood pressure was noted in all 24 cases. A decrease in heart rate and blood pressure was also noted upon administration. Dilatation of the peripheral vessels takes place thus aiding in bringing about the low blood pressure. A decrease in muscle tension-area was noted in all cases. The correlation coefficient between blood pressure values under the influence of mecholyl and muscle tension areas was found to be 0.820, which is significant and shows a positive correlation. The muscle tension areas before and after the administrations of mecholyl was compared by the mean-difference statistical method. The decrease in muscle tension areas was found to be significant as  $\frac{1}{2}P$  was less than 0.5 per cent, indicating the changes were due to the agent and not chance. This decrease in muscle tension areas is attributed to the low blood pressure which decreased the blood flow through the muscle, thus allowing the metabolites to accumulate and increase the susceptibility of the muscles to fatigue. There is capillary and arteriolar dilatation but with the accompanying cardiac slowing, the blood flow is too low to remove the metabolites formed during contraction, thus rendering the muscle more susceptible to fatigue. Mecholyl, in large doses, causes a slight reaction in skeletal muscle but it is believed that with small doses used in these experiments, there would be no effect on skeletal muscle.

A series of experiments to show the effect of vagal stimulation on blood pressure decrease was done. Because of the physiological strain



on the animal due to stopping or slowing the heart, which resulted in wide variations in pressure, it was decided to use another method to lower blood pressure.

The femoral artery was clamped at intervals of one to six minutes to show directly the effect of lack of blood to the stimulated muscles. The results show that there was a steady decrease in contraction areas of the stimulated muscles until at seven minutes, the muscle showed no response.

Twenty cats were subjected to approximately one hundred injections of adrenalin in a random series comprising three groups, each member of which was given a specific dosage of adrenalin. The concentrations selected to observe were arrived at by reviewing the literature. The groups selected consisted of (1) 25 intravenous injections of 1 cc. of 1:1,000 solution of adrenalin introduced into the external jugular vein by direct cannulation and washed into the vein with 5 cc. of saline; (2) 25 intravenous injections of 1 cc. of 1:10,000 solution of adrenalin washed into the vein with 5 cc. of saline; (3) 35 intravenous injections of 1 cc. of 1:100,000 solution of adrenalin was washed into the vein with 5 cc. of saline. Two minute tetanic contractions were obtained immediately after the administration of the drug. Either 5 minutes before or after the administration of the drug, according to random assortment, control contractions were obtained by stimulating the muscles in the same manner and for the same length of time as the contractions under the influence of the drugs and 5 cc. saline as a control.

Whenever concentrations of 1:1,000 and 1:10,000 were administered, the same blood pressure curve was obtained throughout all experiments. The 1:100,000 adrenalin solution gave a varied response. Twenty-seven of the cases showed a small blood pressure rise. One case showed no change in blood pressure. Four cases showed an extensive drop in blood pressure. All muscle areas obtained under the influence of the 1:1,000 adrenalin were smaller than the controls. This was evidently due to the fact that adrenalin, in this concentration causes constriction of all arterioles, capillaries, and, what is most important, the veins in the muscle vascular area. The constriction of the veins would therefore interfere with the blood coming from the muscle and bringing the metabolites with it that normally interfere with contraction. In all but four cases of the 1:10,000, the muscle contraction was decreased in a like manner to the 1:1,000. In the four cases, the muscle contraction areas were the same as the controls. With the 1:100,000 adrenalin, there was an increase in muscle contraction areas in all 35 cases. This was due to the fact that the increases in blood pressure apparently did not prevent the rapid removal of metabolites from the muscle but enhanced the removal of these metabolites. In the cases showing the fall or no change in pressure, the vasodilator component was reacting



to enhance the blood flow through the muscle vascular bed but the fall in pressure was not low enough to cause poor circulation through the muscle as was the case with the histamine and mecholyl. Adrenalin, in these concentrations would enhance the heart's action to prevent any great slowing of the blood flow.

It is concluded therefore that 1:1,000 and 1:10,000 doses of adrenalin bring about a rise of blood pressure but muscle contraction areas are decreased. This result is probably due to the constriction of arterioles, capillaries, and veins with the result that physiologic surface area of the muscle's vascular area is decreased and at the same time, the venous carriage of the metabolites from the active muscle is interfered with. Pitressin, on the other hand, while possibly decreasing the vascular surface area of the muscle, apparently does not act on the veins to interfere with the removal of blood from the muscle. It is also postulated that with pitressin, the increased muscle contraction areas are brought about by increasing the velocity of blood flow through the active muscles. In most instances, an increased blood pressure will mediate increased blood flow but blood pressure does not directly result in increased velocity as other factors such as the cross-sectional area of the vascular bed influences flow. Mecholyl and histamine, while they tend to increase the physiologic surface of the vascular bed of the muscles, lower the blood pressure and increase the cross section diameter of the entire vascular bed to such a degree that muscle nutrition is interfered with.

#### SUMMARY

A history was presented which relates the production and maintenance of skeletal muscle tone to stimulus frequency, anesthesia, and muscle vascularity.

A technique was presented, designed to investigate any positive or negative relationship between general blood pressure, as measured in the carotid artery, and muscle tone artificially produced by stimulating the gastrocnemius and soleus muscles *in situ*.

The results were analyzed statistically and the methods of analysis are presented.

A positive correlation between normal muscle contraction areas and blood pressure, as measured in the carotid artery, was shown. This was done by measuring the muscle contraction areas and the areas under the blood pressure with an engineer's planimeter. The values obtained, in square centimeters, were subjected to a statistical correlation analysis. The values for "r" were significant and indicated a positive correlation between muscle contraction and blood pressure, in the partly anesthetized, but otherwise undisturbed animal.

The blood pressure was lowered by means of mecholyl, and a posi-



tive correlation was shown between muscle contraction areas and blood pressure when a dilator operating through the peripheral vascular nervous system was used.

The blood pressure was lowered by histamine, and a positive correlation was shown between muscle contraction areas and blood pressure areas when a dilator operating directly on vascular smooth muscle was used.

The blood pressure was increased by pitressin, and a positive correlation was shown between muscle contraction areas and blood pressure areas when a constrictor operating directly on vascular smooth muscle was used.

The blood pressure was increased by doses of 1:1,000 and 1:10,000 epinephrine. Varied responses were obtained with 1:100,000 doses of epinephrine. A positive correlation was shown between muscle contraction areas and blood pressure areas when a constrictor operating through the peripheral vascular nervous system was used.

All muscle contraction areas which were subjected to changes in blood pressure brought about by the various agents were analyzed by the mean-difference method of analysis. The change from the normal was statistically significant, indicating that the change was due to the agents, not to chance.

It was noted that the correlation in all these experiments was not a 1:1 relationship between blood pressure areas and muscle contraction areas.

When the blood supply to the stimulated muscles was occluded the muscle contraction areas decreased steadily to a point of no response, indicating directly the effect of lack of blood supply on muscle activity.

Altering the blood pressure by means of polysaccharide-25 did not prove satisfactory as a method since the pressure responses were too variable.

Lowering the blood pressure by means of vagal stimulation did not prove satisfactory as a method, since pressures were too variable.



## AN INVESTIGATION OF THE REACTION OF NITROSYL CHLORIDE WITH 1- AND 2-PENTENE

by MERRIAM ARTHUR JONES\*

The most important use of nitrosyl chloride in organic chemistry has been in the classical studies in the terpenes. In this work, as well as in the earlier work involving simple olefins, the nitrosyl chloride was usually generated in the reaction mixture by the action of hydrochloric acid on isoamyl or ethyl nitrite. Except for work begun in this laboratory in 1937 and some recent developments reported in the patent literature, comparatively little attention has been given to the reaction of nitrosyl chloride *per se* with simple olefins. Since the branched-chain olefins, like the terpenes, give solid addition products with nitrosyl chloride, most attention has been concentrated on them. Straight-chain olefins, according to several investigators, react slowly with nitrosyl chloride and fail to yield solid products; instead, the reaction products were reported to be blue oils not further described.

The present study is a part of the general investigation concerning the reaction of nitrosyl chloride with olefins underway in this laboratory. Since only one straight-chain olefin—2-pentene—had been investigated and this one not exhaustively, further work involving straight-chain olefins was desired. Therefore, the present investigation was undertaken to study further the reaction of nitrosyl chloride with 2-pentene and also to study the reaction with 1-pentene.

The principal initial reaction products obtained in the reactions with nitrosyl chloride were 1-nitroso-2-chloropentane from 1-pentene and 2-nitroso-3-chloropentane from 2-pentene. Reverse addition of nitrosyl chloride, although not expected in the case of 1-pentene, might well have been expected in the reaction with 2-pentene to give 3-nitroso-2-chloropentane. However, no evidence of the latter compound was obtained, and no explanation to account for the absence of reverse addition has been found. It should be mentioned, though, that some reverse addition to 2-pentene may have occurred but the resulting product was not isolated because it was present in small proportions and had properties close to those of the normal product.

The addition of nitrosyl chloride to many olefins yields a white, solid bisnitrosochloride. Such a compound was obtained from 2-pentene. When the reaction of nitrosyl chloride with 2-pentene was carried out either in benzene or in the absence of an inert solvent, at temperatures generally below 0°, the solid bisnitrosochloride, bis-(2-nitroso-3-chloropentane), was obtained in yields as great as 18 per cent. However, in the reaction of nitrosyl chloride with 1-pentene, a solid bisnitrosochloride

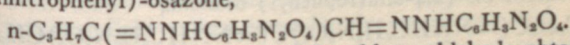
\* A.B., 1933, University of North Dakota; Ph.D. conferred November 11, 1950.



was not obtained. Another difference between the reactions of nitrosyl chloride with the two olefins was that the reaction with 1-pentene was apparently much slower than with 2-pentene. This conclusion was based on the observations that more heat was evolved in the experiments with 2-pentene and that the reaction mixtures became blue in much less time than those containing 1-pentene.

The mixtures from each of the olefins, after being heated to rearrange (isomerize) the nitroso compounds to the oximes, contained the carbonyl compounds as well as the expected oximes. Small amounts of water, hydrogen chloride, hydroxylamine hydrochloride, and ammonium chloride were also obtained on rearrangement as well as during the initial reaction. Therefore, some reaction occurred that yielded water.

On vacuum distillation of the rearranged mixtures obtained in the reaction of nitrosyl chloride with 1-pentene, 2-chloropentanal and 2-chloropentanaldoxime were obtained, leaving a fairly large residue which probably consisted to some extent of polymerised and condensed carbonyl and isonitroso compounds. Both of the 2-chloro compounds yielded the same osazone when treated in alcohol with 2,4-dinitrophenylhydrazine and sufficient hydrochloric acid. The same osazone was also prepared from the blue mixture as well as from the rearranged mixture. This osazone, referred to as osazone A, was, according to its analysis and in analogy with the osazone obtained in the work with 2-pentene, 1,2-pentanedione-bis-(2,4-dinitrophenyl)-osazone,



In order to prove the structure of the chloro aldehyde obtained from 1-pentene, the aldehyde was oxidized with concentrated nitric acid to 2-chloropentanoic acid. The properties of the product agreed with those of 2-chloropentanoic acid given in the literature. The acid was also obtained by oxidation of the blue mixture with fuming nitric acid. As a solid derivative, 2-chloropentanamide was prepared.

The dimethyl acetal was prepared from 2-chloropentanal, but the yield was low. In an attempt to account for a greater proportion of the starting materials in the reaction of nitrosyl chloride with 1-pentene, the rearranged mixture was employed in the preparation of the acetal without previously separating the aldehyde and aldoxime. However, the best result obtained was a 58 per cent yield of the crude dimethyl acetal.

2-Chloropentanal was also prepared by chlorination of pentanal which had been prepared by oxidation of 1-pentanol with dichromate and sulfuric acid. The properties of the synthetic 2-chloropentanal agreed with those of the chloro aldehyde obtained from 1-pentene. Furthermore, on being treated with 2,4-dinitrophenylhydrazine and sufficient hydrochloric acid, the synthetic compound yielded osazone A. The synthetic aldehyde was then oxidized by fuming nitric acid to 2-chloro-



pentanoic acid from which the amide was prepared. The resulting amide was then shown by means of mixed melting point determination to be identical with the amide of the chloro acid prepared by oxidation of the chloro aldehyde obtained from 1-pentene.

Much of the investigation concerning the reaction of nitrosyl chloride with 2-pentene was similar to that described for the reaction with 1-pentene. Thus, after removal of the solid bisnitrosochloride from the blue reaction mixture from 2-pentene, the blue solution was refluxed to rearrange the nitroso compound to the oxime. On vacuum fractionation of the rearranged mixture, 3-chloro-2-pentanone and 3-chloro-2-pentanonoxime were isolated. The yields of carbonyl and isonitroso compounds were much higher than in the reactions with 1-pentene. Further, from 74 to 94 per cent of the nitrosyl chloride was accounted for in the 2-pentene reactions. The forementioned chloro ketone and chloro ketoxime were also obtained when the bisnitrosochloride was rearranged by refluxing its benzene solution.

On being treated in alcohol with 2,4-dinitrophenylhydrazine and sufficient hydrochloric acid, the chloro ketone and the chloro ketoxime yielded identical osazones. This derivative, although insoluble in the usual solvents such as alcohol, acetone, chloroform, ethyl acetate, and benzene, was recrystallized as fine, red needles from dioxane containing 0 to 25 per cent water. Analysis and the fact that the same derivative was obtained from pentane-2,3-dione showed that this derivative was 2,3-pentanedione-bis-(2,4-dinitrophenyl)-osazone,

$$\text{C}_2\text{H}_5\text{C}(=\text{NNHC}_6\text{H}_3\text{N}_2\text{O}_4)\text{C}(=\text{NNHC}_6\text{H}_3\text{N}_2\text{O}_4)\text{CH}_3.$$
This osazone, referred to as osazone B, was similarly prepared from the bisnitrosochloride, the blue mixture, and the rearranged mixture.

3-Chloro-2-pentanone was also prepared by chlorination of 2-pentanone, employing the method of Vladesco. The properties of the synthetic material agreed with those of the chloro ketone obtained from 2-pentene. Further, the synthetic chloro ketone yielded osazone B.

Since both the chloro ketone and the chloro ketoxime obtained from 2-pentene gave positive iodoform tests, attempts were made in the course of the work to utilize the haloform reaction to establish the structure of the compounds. However, although the expected haloform was obtained, the expected chloro acid could not be found.

The chloro compounds obtained in the reaction of nitrosyl chloride with each of the olefins were treated with piperidine to yield the corresponding tertiary amino compounds. Thus, from the chloro aldehyde and the chloro aldoxime from 1-pentene, 2-piperidylpentanal and 2-piperidylpentanaldoxime were prepared in poor yields. However, this phase of the investigation was discontinued in the work with 1-pentene because the structure of the chloro aldehyde was adequately established as described above and also because the yields of piperidyl compounds



were so low. On the other hand, the reaction of piperidine with the chloro compounds obtained from 2-pentene was rather extensively studied, because the structure of the chloro ketone and the chloro ketoxime could be more firmly established by studying the relatively more stable piperidyl compounds. Further, the yields of the piperidyl derivatives in this case were much better than those from 1-pentene. With regard to the structure of the chloro ketone and chloro ketoxime, it is clear that the preparation from these compounds of an osazone identical with that prepared from 2,3-pentanedione proved that the chlorine atom and the carbonyl or isonitroso function were on the second and third carbon atoms. However, these results did not establish the relative positions of the substituents. The fact that both chloro compounds gave strong iodoform tests indicated that the carbonyl or isonitroso function was on the second carbon atom, but the expected 2-chlorobutanoic acid could not be isolated. Therefore, since it is probable that 2-chloro-3-pentanone and its oxime would also give a positive iodoform test, confirmatory evidence of the structures of the chloro compounds was sought by studying the piperidyl compounds.

In the reactions with piperidine, the chloro ketoxime was found to react much more vigorously than the chloro ketone. The reaction of piperidine with the chloro ketone yielded a colorless mobile oil, 3-piperidyl-2-pentanone, from which a platinum salt was prepared. The reaction of piperidine with the chloro ketoxime yielded a colorless, viscous liquid, 3-piperidyl-2-pentanoneoxime, having the consistency of honey. It turned light yellow immediately on contact with air. The piperidyl ketoxime was also prepared by the reaction of piperidine with the bisnitrosochloride. As a derivative, the hydrochloride of the piperidyl ketoxime was prepared. The piperidyl ketoxime was shown to be the oxime of the piperidyl ketone by transforming the compounds one to the other. Thus, the piperidyl ketone, on being treated with hydroxylamine hydrochloride in the presence of pyridine and absolute alcohol, was converted to the piperidyl oxime. The reverse reaction was effected by converting the piperidyl ketoxime to the ketone by the action of formaldehyde and hydrochloric acid and also by hydrolysis of the ketoxime with sulfuric acid.

The blue mixture obtained in the reaction of nitrosyl chloride with 2-pentene was also treated with piperidine. In this manner both the piperidyl ketone and piperidyl ketoxime were obtained. In this connection, an experiment was carried out to test two methods of utilizing the blue mixture. One procedure consisted of refluxing the blue solution with benzene followed by distillation of the chloro compounds. The other procedure consisted of treating the blue solution with piperidine followed by distillation of the piperidyl compounds. The results showed that more product was obtained by the rearrangement procedure, but



that a greater proportion of the product in the form of the oxime was obtained by the procedure involving treatment with piperidine. Further, the foregoing results showed that rearrangement yielded a fair proportion of carbonyl compound along with the chloro ketoxime. On the other hand, treatment with piperidine yielded a relatively small proportion of piperidyl ketone as compared to the amount of piperidyl ketoxime. Somewhat similar results were noted previously with regard to the bisnitrosochloride. That is, when the bisnitrosochloride was refluxed in benzene solution, both the chloro ketone and the chloro ketoxime were produced, but when the bisnitrosochloride was treated with piperidine, only the piperidyl ketoxime was obtained. These findings suggest that the reactions resulting in the formation of water and carbonyl compound observed in the reaction of nitrosyl chloride with each of the olefins did not involve free nitrosyl chloride. More likely, the water and carbonyl compound arose from some reaction involving the monomeric nitrosochloride.

The compound, 3-piperidyl-2-pentanone, was also prepared by the reaction of piperidine with the synthetic 3-chloro-2-pentanone which had been prepared by chlorination of 2-pentanone. By comparison of properties and by mixed melting point determinations of the platinum salts, the synthetic piperidyl ketone was shown to be identical with the piperidyl ketone obtained from 2-pentene. The synthetic piperidyl ketone, on being treated with hydroxylamine hydrochloride in the presence of pyridine, was converted to the piperidyl ketoxime. By comparison of properties and by means of mixed melting point determinations of the hydrochlorides, the synthetic piperidyl ketoxime was shown to be identical with the piperidyl ketoxime obtained from 2-pentene.

In order to establish the position of the piperidyl group in the piperidyl ketone and the piperidyl ketoxime, several reactions were tried. To this end, attempts were made to carry out a Beckmann rearrangement of the piperidyl ketoxime; however, the results were inconclusive. Also, attempts were made to utilize the haloform reaction employing the piperidyl ketone; again the results were inconclusive. To show that the piperidyl ketone and the piperidyl ketoxime were not the 4-piperidyl compounds that would result from removal of the elements of hydrogen chloride followed by addition of the amine to the double bond, attempts were made to prepare 4-piperidyl-2-pentanone by treating ethylidene acetone with piperidine. Here, again, the evidence was not conclusive. Finally, however, the position of the piperidyl group was established by converting the piperidyl ketone to the thioketal and reducing this with activated Raney nickel to 3-piperidylpentane. The identity of the latter was established by comparing its hydrochloride with that of 3-piperidylpentane prepared by treating 3-chloropentane with piperidine.

The piperidyl oximes obtained from both 1-pentene and from 2-pentene



were reduced by sodium and alcohol to the diamines. Thus, 2-piperidyl-pentanaloxime yielded 2-piperidyl-1-aminopentane and 3-piperidyl-2-pentanoxime yielded 3-piperidyl-2-aminopentane. As derivatives of these diamines, the phenylthioureas were prepared. The preparation of these diamines illustrates an interesting series of reactions that may be useful in the synthesis of such compounds.

Finally, the results of this investigation may be summarized as follows:

1. The principal products of the reaction of nitrosyl chloride with both 1-pentene and 2-pentene were found to be those resulting from addition.
2. Seventeen new compounds were prepared and characterized in the course of this work.
3. A method was devised for the preparation of 2,4-dinitrophenyl osazones from certain chloro carbonyl compounds and their oximes.



## PHYSIOLOGIC EFFECTS OF THE TUMOR-NECROTIZING BACTERIAL POLYSACCHARIDE OF SHEAR

by WILLIAM ELIAS POEL \*

The objective of cancer chemotherapy has been the development of chemical treatments which may ultimately be of clinical use, perhaps, in combination with surgery and radiation. Chemical agents have been sought which are capable of damaging neoplasms selectively without serious injury to the host. Although no specific tumor destroying agent has yet been found, and no chemical is known which will cure even one kind of cancer and permit prolonged survival of the host, selective destruction of cancerous tissue has been achieved to a limited extent. This may be due to the greater susceptibility of rapidly proliferating neoplastic cells to irradiation therapy, nucleotoxic poisons, interference with intra-cellular metabolism, etc.

A number of substances, when administered to tumor-bearing animals, affect the tumor adversely. Work with some of these has reached a stage where their clinical application has become possible in favorable cases, with a resultant prolongation in survival time of the patient. Among these are the sex hormones, nitrogen mustards, urethane, folic acid antagonists, and some radio-active isotopes. Although these agents do not provide a cure even under the most favorable conditions, and their therapeutic effects are temporary at best, they do offer benefits even at this early stage in the development of cancer chemotherapy.

Other substances which possess tumor necrotizing activity have had limited clinical application as yet. These substances in general, have poor therapeutic ratios, lack specificity in their action, or have dangerous side effects.

The Shear polysaccharide, one of the most specific and potent agents yet studied for the chemical treatment of certain neoplasms in experimental animals, is included in the latter category at the present time, because of its drastic side effects. This substance is a bacterial fraction extracted from culture filtrates and from the bacterial bodies of *Serratia marcescens*. It has had several limited clinical trials as a chemotherapeutic agent, and has been found to precipitate toxic systemic reactions in patients even when administered in doses too low to elicit any significant therapeutic benefit. Continued interest in the polysaccharide as a chemotherapeutic possibility is warranted, however, by experimental evidence which indicates that a number of the toxic effects of the drug are apparently not related to its tumor necrotizing potency. The necessity for basic studies to help resolve many of the problems

\* A.B. 1937, Brooklyn College; Ph.D. conferred November 11, 1950.



bearing on the physiologic, pharmacologic, and toxic effects of the Shear polysaccharide are thus evident.

The purpose of the present communication is to present exploratory studies of the effect of the polysaccharide on the arterial blood pressure and upon the leukocytes in circulating blood. Toward that end, this dissertation presents a description of studies conducted and significant results obtained, and discusses observations which may help clarify the physiologic bases of systemic reactions to this potent chemotherapeutic possibility.

#### HISTORICAL

Early attempts to treat malignant tumors by means of induced bacterial infections were apparently prompted by observations of cancer regression after spontaneous infections. Clinical observations in the literature of the effects of certain bacterial infections on tumors in human beings were reported as early as 1866. Later workers investigated the use of crude bacterial toxins instead of live organisms for their potential therapeutic value. It is historically interesting to note that many of those early chemotherapeutic attempts antedate the discoveries of radium (1898) and X-ray (1895).

Notwithstanding an early beginning, chemotherapeutic studies did not progress as did those involving radium or irradiation therapy. For example, the separation of the tumor necrotizing fraction from toxic and inert contaminants present in crude bacterial extracts was not achieved until 1936. At that time Shear and Andervont obtained concentrates from the filtrates of broth cultures of *Escherichia coli* (B. coli) rich in polysaccharides, almost negative in protein fractions, and capable of producing hemorrhage and necrosis in mouse sarcoma 37 in doses as low as 0.4 microgram per mouse. Later communications by Shear and co-workers reported the isolation of a similar, tumor-necrotizing fraction from *Serratia marcescens* together with proof of its polysaccharide nature and many of its chemical and physical properties.

Initial studies, including physiologic reactions of mice to the tumor-necrotizing polysaccharide from *Serratia marcescens*, were reported by Shear and Perrault. Chief among the obstacles first reported by them limiting the use of this polysaccharide as a chemotherapeutic tool were: its toxicity, manifested by prostration, diarrhea, decreased muscle tone, and disturbance of the temperature regulating mechanism; and the development of resistance in the host to the physiologic and cytotoxic effects of the drug after the first injection.

Prostration, dyspnea, diarrhea, and disturbance of the temperature regulating mechanism, have been observed in all mammals studied for their reactions to polysaccharide. The disturbance of temperature regulation is characterized by pyrexia in the rabbit, dog, and human. The lack of a causal relation between pyrexia and tumor-necrosis was sug-



gested by the reaction of the mouse, in which polysaccharide produced marked tumor necrosis in spite of hypothermia.

The specificity of the Shear polysaccharide for malignant cells was indicated by the work of Diller. She reported that the amount of polysaccharide required to produce destruction of non-cancerous tissue was approximately ten times that effective in producing destruction of tumor cells.

Leukocytosis after polysaccharide was observed in the mouse (Algire) and human. One investigator (Oakey), in a short summary of the reactions of nine patients to the Shear polysaccharide, mentioned that the leukocytosis was preceded by a leukopenia. The observations on rats and rabbits reported in this communication parallel those of Oakey on the human, and broaden the significance of the leukopenia-leukocytosis sequence, suggesting the advisability of further study of the adrenal in the physiologic reactions to the Shear polysaccharide.

Franke, in the dog, and other workers, in the human, reported a fall in blood pressure to shock levels after parenteral administration of the bacterial polysaccharide. Algire, in discussing the effects of this substance on circulation, pointed out that there is a difference between the shock-like state it induces and the shock condition following trauma. By means of the transparent chamber technique, he observed that the arterioles after polysaccharide are markedly dilated, whereas in traumatic shock they are constricted. The studies herein reported indicate another striking difference between traumatic or surgical shock and the state of physiologic depression following polysaccharide. The severe drop in blood pressure which characterizes other conditions of shock occurred only as a transient phenomenon or was absent entirely after polysaccharide. The blood pressure drop within the first few hours was met only as a transient phenomenon under special conditions in the dog and rabbit, and not at all in the rat, even though other symptoms of shock such as prostration, cyanosis, increased circulation time, and sinus tachycardia were present.

#### PHYSIOLOGIC EFFECTS OF THE SHEAR POLYSACCHARIDE

##### Effects on Blood Pressure

*Method.*—Two polysaccharide preparations were studied for their effects on blood pressure of dogs, rats, and rabbits. The preparations were generously supplied by Dr. Shear of the Chemotherapy Section, National Cancer Institute, and are identified by their designations, "P-20" and "P-25". These stand for the polysaccharide isolated from the *Serratia marcescens* culture filtrate, and from the bacterial cell body, respectively. Surgical anesthesia was induced and maintained in the experimental animals with nembutal (pentobarbital sodium), or urethane (ethyl carbamate). Following anesthesia, the trachea was dis-



sected out, cannulated and connected to a tambour for the recording of respiration on a smoked drum kymogram. The carotid artery was freed of its sheath, cannulated for the purpose of recording blood pressure, and connected to a "U" shaped mercury manometer having a conventional type float and writing arm in the open end of the manometer. The jugular vein in the rabbit, or the femoral vein in the dog, was cannulated and connected to a calibrated burette full of saline. All subsequent infusions of polysaccharide, saline, anesthetic, test drugs, etc., were made by injecting the material into the rubber tubing connected to the venous cannula and washing it in with saline from the reservoir.

A later modification in operative procedure employed plastic tube cannulas for permanently exteriorizing the carotid and jugular vessels in heparinized rats. This modification made possible the intravenous infusion of polysaccharide and the direct recording of blood pressure, approximately 24 hours after anesthesia and operation. It was thus possible to observe and record blood pressure variations, uncomplicated by the systemic effects of previously administered anesthetics, surgical trauma, or physical restraint.

*Experimental Findings.*—A typical response was observed in nembutal anesthetized rabbits and dogs after the infusion of P-20. The reaction consisted of a sharp and drastic drop in arterial pressure to approximately half its former level within 20 to 40 seconds after injection of the drug, followed by a return of blood pressure to the pre-polysaccharide range approximately 15 minutes later. An apparent resistance on the part of the organism to the vaso-depressor action of subsequent doses was observed immediately after the return of blood pressure to control values.

The response of the animal to drugs such as adrenaline, pitressin, acetylcholine, and histamine was not affected after injection of the Shear polysaccharide regardless of the size or number of polysaccharide doses infused. Similarly, unaltered characteristic responses were obtained after the bacterial polysaccharide on stimulating the cardiac depressor nerve, intact right and left vagi, central and peripheral ends of the sectioned right vagus, and sciatic nerve.

The reaction of nembutal-anesthetized dogs to the intravenous injection of either P-20 or P-25 was similar to that described above for the animal after P-20. The first infusion of either polysaccharide preparation produced an almost immediate drop in blood pressure, which was followed by a progressive return to normal limits. Subsequent infusions of either preparation showed that a depressor type of tachyphylaxis had been produced by the first injection.

In the nembutal-anesthetized rabbit, an abrupt blood pressure drop after P-25 was observed in only one out of five animals, as compared with five out of five deeply anesthetized rabbits given P-20. The



capacity of the anesthetic to alter the vaso-depressor phenomenon observed was indicated by urethane anesthesia, as compared with nembutal prior to the administration of the bacterial polysaccharide. Vasomotor depression, as evidenced by an immediate drop in blood pressure after infusing P-20 into a nembutal anesthetized rabbit, occurred only in one out of every four animals given P-20 after urethane, and in none of the urethanized animals given P-25.

Both in the dog and the rabbit, where initial vasomotor depression was recorded after polysaccharide, the blood pressure eventually returned to and stabilized itself within the range of pre-polysaccharide fluctuations, regardless of the number of doses or size of dose administered. This was found to take place even when the total amount of polysaccharide infused was several times the known lethal dose for an intact animal.

In the non-anesthetized rat with exteriorized carotid and jugular tubes, toxic and even lethal doses of P-25 had no apparent effect on the blood pressure, even though other signs of toxicity were strikingly evident (i.e., cyanosis, dyspnea, tachycardia, comatose unresponsiveness, diarrhea, etc.).

*Discussion.*—In standard text books of pharmacology or physiology, the term "tachyphylaxis", i.e. rapid protection, refers specifically to the decreasing responsiveness of an animal to repeated injections of pressor agents, such as ephedrine, pitressin, and crude extracts of normal kidneys containing renin. Apparently, this term has not been applied previously to denote a decreased responsiveness to repeated injections of a depressor substance, specifically one of a polysaccharide nature. Possibly, this was due to an inability to elicit a depressor tachyphylactic reaction. With the demonstration that at least one substance, the Shear polysaccharide, is capable of eliciting that sort of physiologic response, the term "tachyphylaxis" is reconsidered in a broader sense, as a general term which may be used in referring to certain depressor as well as pressor reactions.

These studies also suggest that the administration of a sedative or anesthetic with intrinsic vaso-depressor characteristics may result in a synergized depression of blood pressure after polysaccharide. That this point has heretofore not deterred clinicians from using potential vaso-depressor agents as sedatives prior to polysaccharide administration is shown in their communications dealing with the clinical exploration of the drug.

A comparative study of two polysaccharide preparations, P-20 and P-25, indicates that for P-25 the lethal dose range in the rabbit is considerably higher, and the blood pressure depressing effect far less drastic than it is for P-20.

An impression has been gained from these exploratory experiments with the Shear polysaccharide that the factor of shock and blood pres-



sure depression, so alarming when present in the human, is not a prime lethal factor in the rabbit, rat, or dog. In the dog and rabbit, the initial and secondary blood pressure depressions resulting from even lethal doses of the polysaccharide are followed by a return of the pressure to the pre-polysaccharide range. In the cannulated, non-anesthetized rat, preliminary findings indicate no blood pressure drop, either initially or secondarily, even after lethal polysaccharide doses.

To date there are no reports in the literature which conclusively define the role of shock in the production of tumor necrosis. Algire believes that tumor destruction in the mouse is secondary to anoxia with resultant capillary stasis, while Diller suggests a direct cytotoxic effect of the Shear polysaccharide on tumors. By means of the technique used to measure the blood pressure directly in non-anesthetized rats, further studies are planned to ascertain whether a cause-effect relation exists between a shock-like depression of blood pressure and tumor necrosis. If the production of shock is found to be essential for the destruction of malignant cells, then further studies will be necessary to determine how to produce and control the polysaccharide "shock-like" state which the clinician views so fearfully today. If, on the other hand, it is demonstrated that shock, like pyrexia is merely a drastic side effect with no essential role in producing destruction of cancer cells, it will be obvious that prime emphasis in future studies must be laid on ways and means of reducing or eliminating the vaso-depressor effects of this polysaccharide.

#### Toxicity

Detailed toxicity studies of the Shear polysaccharide in the rat and rabbit were not made during the course of this work. Nevertheless the over-all reactions of the animals to different dose levels indicated, roughly, that the maximum non-lethal intraperitoneal dose of P-25 in the rat was 3 gamma per gram of body weight while the maximum intravenous dose which could be tolerated by the rabbit was 1 gamma per gram. These approximations of maximum tolerable doses pertain to experiments at room temperatures not exceeding 26° C. Fatalities were experienced at these and lower dose levels when the room temperature increased to 28° C. or above.

In contrast to the vaso-depressor activity of the polysaccharide, which varied with the species of animal and was influenced differently by different anesthetics, other toxic reactions were produced uniformly in all three of the animal species studied. These included transient leucopenia followed by polymorphonuclear leucocytosis and relative lymphopenia, diarrhea, pyrexia, pulmonary congestion, tachycardia, cyanosis, anoxia, and prostration. The demonstration of the same symptoms in the three different species studied, as well as in man, strongly suggests a common, underlying mechanism of action. In contrast to the state of "shock"



and blood pressure depression which appears to be the most outstanding toxic manifestation to the clinician, prostration, and pulmonary congestion and edema were the foremost toxic signs in the experimental animals. The signs of pulmonary congestion and edema, previously observed in debilitated cancer patients after polysaccharide, have been attributed clinically to infusions of saline, blood, and plasma, pyrogenic reactions, heart failure, and the destructive effects of the Shear polysaccharide on pulmonary metastases. Observed in apparently normal, non-tumor bearing animals, after the parenteral administration of polysaccharide alone, pulmonary edema appears to be a toxic sequel to the administration of the drug. It is suggested that the development of marked pulmonary edema per se may be capable of eliciting most of the other toxic signs noted; i.e., dyspnea, tachycardia, congestive heart failure, cyanosis, and prostration. Further work may show to what extent severe pulmonary edema is capable of producing these effects.

#### Variations in the Total and Differential Leukocyte Count Induced by the Shear Polysaccharide

*Material and Methods.*—Changes in the circulating blood involving the leucocytic cells were studied in Dutch and New Zealand rabbits and in young adult Osborne-Mendel rats. The polysaccharide or saline control solution was injected intraperitoneally into the rat and intravenously into an ear vein of the rabbit. Blood samples before injection and periodically after injection were obtained from the ear vein of the rabbit and from the tail of the rat. Standard procedures were used in all blood studies. Wright-Giemsa stain was used for the differential slides.

*Experimental Findings.*—In contrast to the leucytosis described in published reports, the injection of either P-20 or P-25 in the present experiments produced an initial severe leucopenia which began within 15 minutes after administration of the drug and reached a point of maximum depression within three to four hours. A reversal of this trend began thereafter and continued on toward leucocytosis, in which the highest count exceeded twice the pre-polysaccharide count in the rabbit.

Differential counts showed that both the granulocytes and agranulocytes were involved in the leucopenia and leucocytosis, but not to the same extent. The neutrophil variations contributed more to both stages than did other leukocytes in the rabbit. Neutropenia was seen within 15 minutes after polysaccharide and was followed by neutrophilia in less than 5 hours. Variations in the count of circulating lymphocytes paralleled those of the neutrophils; although the extent of their change was not so extreme, the onset of lymphopenia tended to lag behind the onset



of neutropenia, and the lymphocytosis following leukopenia was more apparent than real.

In the rat, after the initial leukopenia stage, an absolute leukocytosis was usually either mild or absent. The second stage was marked instead by a striking polymorphonuclear leukocytosis, accompanied by a continued lymphopenia. In general, however, similar patterns of reaction to the drug were observed in the leukocyte picture of both animals.

A mild normoblastosis was observed in the rabbit and rat several hours after polysaccharide administration. The appearance of several normoblasts per hundred leukocytes was recorded after the systemic reactions to the polysaccharide were apparently most profound. In the absence of hemolysis or other indications of red cell destruction this reaction appeared to be a response to the generalized anoxic state of the animal.

*Discussion.*—The common reaction pattern evident in the changes in circulating blood of the rat and rabbit after polysaccharide, the profound general depression or prostration of the animals while under the immediate influence of the drug, and the previously mentioned toxic manifestations in the injected animals—all these changes strongly suggest and characterize a "non-specific stress reaction." Whether the adrenal is an essential intermediate in producing the blood changes or the other reactions to the drug is a problem that may be clarified by further experimentation. That the leukocyte changes are mediated by a systemic mechanism and are not due to a direct destructive action of polysaccharide on the hematopoietic centers is suggested by the pattern of leukopenia, followed by polymorphonuclear leucocytosis and relative or absolute lymphopenia in all animals, regardless of the amount of polysaccharide injected or the ability of the animal to survive the consequences of the injection. The observations herein reported suggest that further study of the adrenal in the reaction of an animal to the Shear polysaccharide is well worth undertaking. They also suggest that, of the entire aggregate comprising the crude bacterial extract, the polysaccharide fraction isolated by Shear is capable, per se, of eliciting the non-specific systemic phenomena which Selye termed the "Alarm Reaction".

#### SUMMARY

The untoward systemic reactions which preclude the clinical use of the Shear polysaccharide as a chemotherapeutic agent emphasize the need for basic studies of its physiologic and pharmacologic effects. When the primary actions of the drug responsible for tumor necrosis are distinguished from those responsible for toxic side effects, the elimination of the undesirable effects may be undertaken with a greater likelihood of success. Towards that end, this dissertation describes exploratory



studies on the effect of the Shear polysaccharide upon the arterial blood pressure and upon the leukocytic cells in circulating blood. Observations are presented and discussed which tend to clarify the physiologic bases of systemic reactions to this drug.

#### CONCLUSIONS

1. A severe drop in blood pressure has been reported heretofore as one of the serious toxic effects of the Shear polysaccharide in man. These studies indicate that it is only a transient, reversible phenomenon in the dog and rabbit. Preliminary studies suggest that it is not encountered at all in the non-anesthetized rat.

2. Blood pressure depression after the injection of the Shear polysaccharide in the rabbit appears to be synergized by the preceding administration of pentobarbital sodium.

3. Tachyphylaxis to a vaso-depressor phenomenon is described. This was observed after recovery of blood pressure, following the initial injection of the Shear polysaccharide into rabbits and dogs. Apart from immediate interest in this observation in relation to the systemic effects of the bacterial polysaccharide it indicates the usefulness of extending the meaning of the term "tachyphylaxis" to include certain depressor phenomena.

4. The sum of all the observed toxic effects and physiologic phenomena elicited by this drug in the rat and rabbit suggests the "Alarm Reaction". Conversely, these studies also suggest that the "Alarm Reaction" may be precipitated by the bacterial polysaccharide, per se. The evidence for this concept is presented and discussed.



## A STUDY OF THE METABOLISM OF D (—) ARABINOSE IN THE RABBIT

by EUGENE WORTHINGTON RICE\*

The five carbon sugars, the pentoses, are widely distributed in the vegetable kingdom either in the free state, or, more frequently, in a combined form in gums, hemicelluloses, pectic materials, and bacterial polysaccharides. In both plant and animal tissues D-ribose, and 2-desoxy-D-ribose are universally found as constituents of the nucleic acids. Ribose is likewise a component of cellular mono and dinucleotides.

Carbohydrates, in general, are oxidized by the animal as a source of energy, transformed to glycogen, or converted into fat. Of these various processes, glycogenesis and glycogenolysis occupy a central position. The foundations of the study of carbohydrate metabolism were laid by Claude Bernard (1813-1878). Since the time of Bernard, the metabolic fate of ingested carbohydrates has been very extensively studied.

The carbohydrates of the usual diet consist of celluloses and pentosans, which are unassimilable by man, polysaccharides and disaccharides which are absorbed from the gastrointestinal tract after they have been hydrolyzed by the digestive processes into monosaccharides, and preformed monosaccharides that are absorbed unchanged. The principal monosaccharides formed during digestion are glucose, fructose, and galactose. Mannose and pentoses are available in foods only in relatively small quantities.

The removal of absorbed sugars from the blood stream is the resultant of at least five variable processes.

1. Simple diffusion through the body fluids.
2. Conversion to glycogen by the liver and the tissues.
3. Removal by the kidneys.
4. Conversion to fat.
5. Oxidation of the carbohydrates.

The utilization of glucose involves, in general, the following steps:

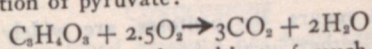
1. Monosaccharides are phosphorylated and transformed into glycogen.
2. Glycogen is phosphorylated and transformed into fructose-diphosphate.
3. Fructose-diphosphate is split into two molecules of triose-phosphate.
4. In a series of transformations pyruvic acid is formed.
5. Pyruvic acid is reduced to lactic acid.

Numerous enzymes are necessary for these transformations as well as a coenzyme and two phosphate carriers. Several inorganic ions are also indispensable.

\* B.S. 1942, West Virginia University; M.S. 1948, The George Washington University; Ph.D. conferred November 11, 1950.



The major amount of energy is liberated during the oxidation of the glycolytic end products. This second phase of the degradation of glucose to carbon dioxide and water is an aerobic process by which pyruvic acid is oxidized. The over-all result of the tricarboxylic acid cycle is the complete oxidation of pyruvate:



Although pentoses have been the subject of much investigation, little is actually known of their role in plant and animal physiology. Concerning the metabolic fate of pentoses in animals, one thing seems certain: if they are utilized they are not utilized to the same extent nor in the same manner as commoner hexoses. In general, the pentoses have been thought to pass into the tissues by diffusion where they are more or less unavailable to the animal for metabolic purposes and for this reason are excreted slowly.

These aspects of biochemistry offer numerous unsolved problems, and hence it was thought desirable to reinvestigate the metabolic fate of pentoses in animals by means of *in vivo* studies. D-arabinose was the pentose chosen for investigation.

The present report is the results of a study of D-arabinose metabolism in the rabbit. In particular, this work was planned to follow arabinose tolerance and glycogenesis along with the study of some intermediate blood metabolites to determine whether this carbohydrate is involved in the known carbohydrate cycle.

D-arabinose is encountered rarely. Aloin glycosides and tubercle bacilli are known natural sources of this sugar. It is best made in the laboratory by the oxidation of calcium gluconate by hydrogen peroxide and ferric sulfate. The resolution of D, L-arabinose into the component isomers is accomplished by fractional crystallization of the active methylhydrazones.

The analytical methods used in this study are standard recognized procedures. The pentose method was developed by the author and is particularly well adapted to the type of metabolic studies that are reported. The first problem investigated was the blood and tissue levels of arabinose after oral administration. The free pentose content of the tissues of control fasting or fed rabbits was found to be nil. After arabinose feeding, the concentrations of total sugar and non-fermentable reducing substances reached a peak in about one hour and returned to the pre-ingestion levels in about six hours. The pentose level paralleled the nonfermentable fraction and was at an essentially zero value in about six hours. There was not a detectable shift of pentose into fermentable substances. A gradual decrease in the arabinose in the intestinal tract was observed, only 2 per cent of the dose remaining nine hours after administration. Only traces of free pentose were found in the body tissues at the one and two hour intervals after administration. Arabinose



appeared in the urine early in the experiment. The total urinary excretion was less than 10 per cent of the amount administered in all cases. The rabbit, therefore, does not retain this sugar in the tissues and excretes it slowly in the urine. Additional experiments showed that the arabinose is not stored in the tissues, nor excreted in the urine in a loosely bound form.

Since the preliminary studies showed that D-arabinose undergoes a metabolic transformation, a study was made of liver glycogen formation following administration of this carbohydrate.

Statistical analysis of the data showed that the mean increase in liver glycogen following D-arabinose is significantly greater than that obtained with saline administration ( $t = 3.5$ ,  $P < 0.01$ ). But D-arabinose must be considered a poor glycogen-former in comparison with glucose, since the mean increase in liver glycogen after administration of the latter sugar is significantly greater than that obtained with D-arabinose ( $t = 9.1$ ,  $P < 0.01$ ).

The third phase of this work was a study of the effect of D-arabinose administration on blood lactate and keto acids levels, since it is known that glucose, galactose, and fructose give rise to increased blood lactate and pyruvate under basal conditions. Analysis of variance showed non-significant variations in the hourly values for blood lactate and keto-acids when saline was injected. After glucose injection there was a highly significant variation ( $P < 0.01$ ) in the tests for blood lactate and a moderately significant variation ( $P < 0.05$ ) in the blood keto-acid values. When D-arabinose was injected the tests were moderately significant for blood lactate ( $P < 0.05$ ) and non-significant for blood keto-acids. The observation that glucose gives rise to only moderately significant changes in the blood keto-acids indicates that this procedure is not a sensitive method for measuring carbohydrate degradation. The negative findings with blood keto-acids after D-arabinose administration might therefore reflect the use of a method of low sensitivity.

The preceding data present unequivocal evidence to show that D-arabinose is metabolized by the rabbit, and suggestive, but not rigorous, evidence that this sugar gives rise to intermediates that enter known pathways of carbohydrate metabolism.







SUMMARY OF DISSERTATION  
SUBMITTED FOR  
THE DEGREE OF  
DOCTOR OF JURIDICAL SCIENCE

1949



SUMMARY OF DISSERTATION  
SUBMITTED FOR  
THE DEGREE OF  
DOCTOR OF JURIDICAL SCIENCE  
1919



## THE CLIFFORD REGULATIONS: A CASE STUDY IN ADMINISTRATIVE LEGISLATION

by JOHN BENJAMIN OLVERSON \*

The Supreme Court's decision in *Helvering v. Clifford*, 309 U. S. 331 (1940) represents another example of a futile effort on the part of taxpayers to find ways to reallocate their income to benefit themselves tax-wise and at the same time realize economic benefits flowing from such income. The case involved a five-year trust created by the grantor for the benefit of his wife. At the end of five years or upon the earlier death of either the grantor or his wife, the trust corpus would revert to the grantor or his estate. The grantor established himself as trustee with broad powers to pay out or accumulate the income and to manage the trust property practically without limitation or control. The Supreme Court ignored the "niceties of the law of trusts" and held that the grantor had retained "substantial ownership" and hence was taxable on the trust income under Section 22(a) of the Revenue Code.

The Courts decision rested on the fact that there existed a multiplicity of factors which "lead irresistibly to the conclusion that respondent continued to be the owner" of the trust corpus. Three factors were considered: (1) the short duration of the trust; (2) the fact that the wife was the beneficiary; and (3) the retention of control over the corpus. Of particular significance is the Court's statement that "no one fact is normally decisive but that all considerations and circumstances of the kind we have mentioned are relevant to the question of ownership and are appropriate foundations for findings on that issue." Another pertinent observation was the Court's admission that Congress had adopted no "rule of thumb" for taxing short term trusts but accepted the coverage of such trusts under the broad language of Section 22(a), the result of which, in its opinion, left "to the triers of fact the determination of whether or not on the facts of each case the grantor remains the owner. . . ."

Since every court decision usually conveys a rule, we have a right to expect that a rule exists in the *Clifford* decision. But what might that rule be? May the decision be reduced to a definite formula the application of which to any set of facts will resolve all of the Clifford-type trusts?

The *Clifford* decision is not reducible to a definite formula which will resolve any case to which it applies. The nature of the decision makes it impossible to state other than a general rule. The Circuit Court decisions interpreting the decision provide only illusions of a *Clifford* rule—a nebulous clue that such a rule exists. One court was frank to admit

\* B.S. 1947, American University; LL.B. 1939, LL.M. 1941, Georgetown University; S.J.D. conferred June 1, 1949.



that the *Clifford* decision "has proved the starting point of a fertile proliferation, out of which no definite doctrine has emerged, or in the nature of things could emerge." *Hyman v. Nunan*, 143 F. (2d) 425, 427 (C.C.A. 2d, 1944).

Of all the Circuit Court decisions interpreting the *Clifford* decision, not one has employed a single factor approach to taxing trust income to the grantor as "substantial owner". Every attempt to isolate the short term factor or the control factor was rejected. On the other hand, the cases agree that the question of "substantial ownership" is one of degree. They are also in substantial agreement that the length of the trust, the relationship of the grantor to the beneficiary, and the control retained by the grantor are the most important general factors. The underlying rationale is that the court must look to the whole nexus of powers reserved by the grantor to determine whether they so nearly approached full dominion as to be its equivalent. A substantial majority of the later decisions treated the *Clifford* problem as presenting a factual situation and hence Tax Court decisions which are supported by evidence should not be disturbed on appeal.

An analysis of the *Clifford* decision and the Circuit Court cases interpreting it leads to but one conclusion which is that the question of "substantial ownership" is one of degree. It either exists or does not exist depending upon all of the attendant facts and circumstances. Hence, there is no definite *Clifford* formula which will fit every *Clifford*-type trust any more than there is a precise formula which will resolve every negligence case.

In the absence of any definite formula supplied by Congress, the Treasury promulgated the *Clifford* regulations for the stated purpose of removing the confusion which had resulted from the *Clifford* decision. The regulations set down precise tests for determining when a grantor has retained substantial ownership whereas the courts provided only general tests. They drew an arbitrary line between a short term and a long term trust by providing that the income of a trust is taxable to the grantor "where the grantor has a reversionary interest in the corpus or the income therefrom which will or may reasonably be expected to take effect in possession or enjoyment—(1) within 10 years commencing with the date of the transfer". This provision not only attaches particular significance to a ten-year trust for which there is no judicial precedent, but it also isolates the term as a single factor in determining "substantial ownership". The cases have entirely rejected any attempt to apply such a test. What the Treasury has done is analagous to a situation where a trial judge instructs the jury to disregard all the relevant facts in the case and merely look for the one fact which he has arbitrarily determined to be decisive of the issue. Typical of the language employed by the courts may be found in *Commissioner v. Buck*,



120 F. (2d) 775 (C.C.A. 2d, 1941) where the Second Circuit said (p. 778): "We must consider a variety of factors in drawing the line between taxability and nontaxability in this field where differences of degree produce differences in kind."

This provision has ignored the judicial approach which is to consider a multiplicity of factors with varying weight given to the various factors depending upon their relationships to one another and their setting in the trust agreement. But, as the Sixth Circuit has said: "No case has been brought to our attention which expressly holds that a short term of itself requires taxation of income to the donor". *Central Bank of Cleveland v. Commissioner*, 141 F. (2d) 352, 355 (C.C.A. 6th, 1944).

The underlying reasoning of the more recent decisions is that the factor of control is the most important of the various factors of ownership. Mr. Justice Learned Hand once stated that "the longer the term, the more important the reserved powers and vice versa." *Commissioner v. Elias*, 122 F. 171, 174 (C.C.A. 2d, 1941). Hence, the term of a trust ranging between ten and fifteen years is of relative unimportance. Consequently, the control must be very substantial and complete according to the cases. Any one of the three factors of control set out in the regulations supposedly represents "very substantial" and complete control. But again the cases do not follow this approach. "Substantial", "very substantial", and "complete" are relative terms. Also, there are varying degrees within each term. These concepts are reflected in the case law but not in the regulations.

The *Clifford* regulations were promulgated for the avowed purpose of removing the confusion and uncertainty resulting from the Supreme Court's decision in the *Clifford* decision and the many variations of interpretations of it by the Circuit Courts. In accomplishing this general purpose, they provide precise tests in contradistinction to the general tests adopted by the courts. As a part of the administrative regulatory process, the regulations represent an excellent case study of the exercise of rule making not only because of their inherent functional nature but also because of the constitutional and administrative law problems involved.

The regulations were promulgated under the Treasury's power to "prescribe and publish all needful rules and regulations for the enforcement" of the tax law. Although regulations promulgated under this power have been generally classified as part of the "rule making" process irrespective of their nature and function, they do not represent true "rule making" as a quasi-law making process. They are commonly referred to as interpretive regulations and should be classified as that part of the process incidental to the execution of the law. Their function should be limited to the interpretation of the terms and provisions of the statute for public guidance and to aid subordinate officers in the



enforcement thereof. They should not implement or create new law at the administrative level.

Sometimes, however, interpretation is carried beyond its limited function. If a regulation in effect embodies new rules of law which are not found in the statute or the court's interpretation of the statute, then it is legislative in character and is properly classed as a part of the "rule making" process.

The *Clifford* regulations represent an excellent illustration of administrative "rule making" under the guise of interpretation. Since such regulations as a whole are not founded on a specific delegation of legislative power to promulgate legislative rules and regulations within defined statutory limits with legal sanctions imposed for failure to comply therewith, they represent an unconstitutional exercise of legislative power in violation of the separation of powers.

Furthermore, the regulations are contrary to the general *Clifford* concepts adopted by the courts under the judicial power of Article III of the Constitution. If they do not represent a proper exercise of quasi-legislative power pursuant to a valid statutory delegation of rule making power, or an exercise of a power incidental to the administration and enforcement of the statutory authority delegated, their validity is questionable on the theory that they encroach upon the judicial power. If this is not a violation of the constitutional doctrine of the separation of powers, it would certainly appear to be contrary to its spirit.

Interpretive rules and regulations should be classified as a phase of the administrative process incident to the enforcement of statutory authority. They should not be classified as part of the rule making function. Rule making should be limited to rules and regulations of general applicability and future effect designed to implement or prescribe law or policy. All rules and regulations promulgated under the guise of interpreting or construing statutory terms or provisions but which actually implement or embody new law should be classified as part of the rule making function because of their legislative character.

It is evident that interpretation designed for the purpose of effectuating a statutory policy is very different from interpretation designed to implement statutory policy by prescribing new law. The former is an incident to the enforcement of the statute and is more appropriately classified as an administrative function; the latter, even though erroneously labeled as interpretation, embodies new law by enlarging the statutory policy and should be properly classified as a rule making or legislative function. Writers in this field, however, have ignored this distinction. They generally adhere to the unrealistic and arbitrary view that all rules and regulations, which are not prescribed pursuant to a specific delegation of legislative authority to implement or fill in the



details of a standard, are merely interpretive. That the converse is true is clear in the case of the *Clifford* regulations.

Sections 2 and 4 of the Administrative Procedure Act are out of step with reality. Section 2, in including every interpretive rule or regulation within the definition of "rule" is contrary to practical analysis as well as inconsistent with the remainder of the definition insofar as it relates to rules designed to "implement" or "prescribe law or policy." "Rules" should be defined to include only those rules and regulations which are truly part of the rule making process, *viz.*, legislative or substantive rules and regulations. If it is desired to retain interpretive rules in the definition, they should be also defined to embrace only those interpretive rules which implement or prescribe new rules pursuant to statutory delegations of power, whether general or specific. Moreover, the mere fact that a statutory delegation of power is general rather than specific, as in the case of sections 62 and 3791(a) of the Revenue Code, should not preclude the issuance of legislative or substantive regulations. Merely because the delegation is general should not of itself control in determining whether the statute contains adequate standards to limit or control administrative discretion. Section 22(a) of the Revenue Code, in defining "gross income", provides a good example of an adequate standard controlling or limiting administrative discretion and which should permit substantive or legislative regulations based on a general delegation of statutory power.

Section 4 of the Act is even more unrealistic. Again, without defining "interpretive rules", it excludes all such rules from the rule making process. Hence, the *Clifford* regulations, a perfect example of administrative legislation, are exempt from the procedural requirements of rule making. That this is a patent misunderstanding of the process is obvious. Any rule or regulation, regardless of its label, should be subjected to the rule making process if it implements or prescribes law. Section 4 should exclude only those rules, so-called "interpretive", which are issued as administrative interpretations and having for their purpose of construing statutory terms or provisions. Regulations of the *Clifford* type which actually embody new law should not be excluded from the rule making process.

A very simple rule should suffice to clarify future thinking in regard to the classification of rules and regulations. All rules and regulations, of general applicability and future effect, promulgated pursuant to either a specific or general delegation of statutory power and which rest on an adequate legislative standard or policy controlling or limiting the administrative discretion with respect to such rules or regulations should be classified as part of the rule making process. All other rules, rulings, opinions, announcements, etc., may then be properly classified as part of the incidental functions inherent in the administration of statutes.



of the American Medical Association. The American Medical Association is the largest and most influential organization of physicians in the United States. It was founded in 1847 and has since that time been a leading force in the promotion of the medical profession. The Association's primary purpose is to advance the interests of the medical profession and to improve the quality of medical care. It does this through a variety of means, including the publication of the *Journal of the American Medical Association*, the holding of annual meetings, and the advocacy of legislation and public policy. The Association also provides a wide range of services to its members, including continuing medical education, malpractice insurance, and a variety of other benefits. The Association's efforts have been instrumental in the development of the medical profession in the United States, and it continues to play a vital role in the advancement of medicine and the improvement of patient care.



THE BUREAU OF THE OCCUPATIONAL INFORMATION  
AND GUIDANCE SERVICE UNITED STATES DEPARTMENT OF  
EDUCATION, WASHINGTON

BY JOHN FREDERICK HEDGECOCK

Professor of the Study and Guidance of Youth

The purpose of this study is to collect the summaries, prepared by the contributors of the Occupational Information and Guidance Service, of the present or anticipated career of the graduates of the various high schools, colleges, and universities in the United States.

The chief sources of data included interviews with the graduates of the various high schools, colleges, and universities, and other staff members, members of the various departments, and the history of the various institutions of the various departments, and the data of the Service.

SUMMARIES OF DISSERTATIONS  
SUBMITTED FOR  
THE DEGREE OF DOCTOR OF EDUCATION  
1949 and 1950



SUMMARIES OF DISSERTATIONS  
SUBMITTED FOR  
THE DEGREE OF DOCTOR OF EDUCATION  
1919 and 1920



# THE PROGRAM OF THE OCCUPATIONAL INFORMATION AND GUIDANCE SERVICE, UNITED STATES OFFICE OF EDUCATION, 1938-1948

by JOHN FREDERICK BROUGHER \*

## PURPOSE OF THE STUDY AND SOURCES OF DATA

The purpose of this study is to outline the historical background for the establishment of the Occupational Information and Guidance Service and to present an interpretive review of the development of the Service. The study endeavors further to consider the outlook and to make recommendations.

The chief sources of data included interviews with the Chief of the Service and other staff members, interviews with other persons familiar with the history of the Service, publications of the Bureau and Office of Education, and the files of the Service.

## HISTORICAL BACKGROUND—A HALF CENTURY OF DEVELOPMENT

The Occupational Information and Guidance Service in the Vocational Division of the Office of Education was established in the Summer of 1938. To those who had labored through the years for a national program of guidance this was the fruition of a dream which had long seemed unattainable.

The U. S. Office of Education was the logical agency in which guidance activities should be centered. The Office, and its predecessor, the Bureau of Education, had been closely identified with the guidance movement throughout its history. We have seen how many of the early publications were issued as Bureau bulletins and were thus subsidized and given nation-wide distribution. Meyer Bloomfield, one of the fathers of the vocational guidance movement, undertook one of his studies at the specific request of the Commissioner of Education. During the World War I period, a member of the staff of the Bureau who was assigned responsibility for the field of vocational guidance wrote the Bureau's first bulletin on the subject, *Vocational Guidance and the Public Schools*. At the same time, the Bureau was cooperating with the Commission on the Reorganization of Secondary Education which in 1918 issued its important statement on *Vocational Guidance in Secondary Education*.

The Office of Education continued to produce guidance publications during the 1920's and 1930's. It aided the movement for the study of specific occupations by preparing occupational leaflets dealing with the various professions. The National Survey of Secondary Education, which was conducted by the Office and financed by a foundation grant,

\* A.B. 1926, A.M. 1929, Columbia University; Ed.D. conferred June 1, 1949.



devoted a significant monograph to guidance programs in high schools.

Studies produced by the Office in the field of guidance became more numerous and more specialized during the 1930's. In addition to comprehensive bibliographies of current guidance literature, there were bulletins dealing with college student personnel work, studies made in the Civilian Conservation Corps, and manuals on testing related to guidance on various levels.

#### OCCUPATIONAL INFORMATION AND GUIDANCE SERVICE—A CHILD OF THE GREAT DEPRESSION

The depression of the 1930's produced the conditions under which the success of the final effort to establish a national guidance service was assured. The need for a program became urgent and in a sense desperate as unemployment grew and large groups of our population were literally cast adrift. Youth, and young adults especially, felt the full weight of dislocation and insecurity. It was generally recognized more and more clearly that a satisfying life for an individual depends to a great extent upon proper adjustment in a vocation.

Among the agencies set up for this purpose, the Civilian Conservation Corps and the National Youth Administration were nation-wide activities conducted by the Federal Government, while the American Youth Commission was a private organization sponsored by the American Council on Education.

#### LEADERSHIP OF THE NATIONAL VOCATIONAL GUIDANCE ASSOCIATION

At the same time the leading professional organization of guidance workers, the National Vocational Guidance Association, was making many contributions. One of the most important was the development of a program financed by the Carnegie Foundation called the National Occupational Conference. This Conference sponsored a number of much needed studies and promoted guidance through the enlarged professional journal of the Association, renamed *Occupations*. One of its most important and lasting contributions was the founding of the *Occupational Index*, a specialized index to guidance publications.

The National Vocational Guidance Association campaigned continuously and persistently for a national guidance program. The question was discussed at national and local meetings and through the pages of its magazine. The Association's 1937 convention was the scene of a discussion of a very definite proposal for the establishment of a guidance service in the Office of Education. Its leaders were prominent among the guidance workers who were consulted in connection with the organization of the Occupational Information and Guidance Service and the development of its policies.

Strong influence was also exerted by the Adjustment Service in New



York City. Although local in scope and relatively brief in its period of operation, it gave an impressive demonstration of the value of a guidance center to a community and to individuals. Equally important, many of its staff became outstanding national guidance leaders.

Reference must also be made to the President's Advisory Committee on Education which in its report in 1938 made recommendations regarding the development of a program of vocational guidance and pointed out that vocational guidance was not receiving proper attention as part of vocational education, especially in the program subsidized by federal funds.

#### LEADERSHIP IN THE OFFICE OF EDUCATION

The staff of the Office of Education was in close touch with discussions relating to the guidance program, and under the leadership of Commissioner Studebaker developed plans which finally matured in the organization of the Occupational Information and Guidance Service. One of the critical decisions involved was the use of vocational education funds to finance the project, and this determined the placement of the guidance agency in the Division of Vocational Education. The Commissioner received a grant from the National Occupational Conference to assist in the initial development of the work. Although the Guidance Service was organized under the Vocational Education Division, the question of the maintenance of separate guidance functions in other divisions of the Office of Education has arisen.

#### PROMOTION OF GUIDANCE THROUGH STATE DEPARTMENTS OF EDUCATION

The Occupational Information and Guidance Service has as a primary responsibility the promotion of guidance through the states. Aid is given to the states in developing guidance policies and in making them a part of the State Vocational Education Plans which determine the basis for the payment of federal subsidies under the Vocational Education laws. Guidance programs were broadened under the George-Barden Act of 1946 which extended reimbursement to include counselor training activities, salaries of counselors in local schools, and out-of-school youth guidance programs.

Vocational education subsidies may now be paid to the states for the following guidance services on a matching basis, one dollar of federal funds for each dollar of state or local funds: salaries and traveling expenses of state, county, or local guidance supervisors; counselors in local schools; persons engaged in counselor training programs; and salaries and expenses of persons engaged in counseling out-of-school youth.

Maryland was the first state to enter the program which now includes



(1948) forty-three states and territories. Several states conduct programs supported wholly by state funds.

The Service has held many conferences, both national and regional, with state supervisors of guidance in order to promote the programs. Since there has been considerable turnover among the supervisors, the conferences have been one of the chief means of assuring continuity of effort in state guidance services. Important conferences have also been held on the subject of counselor training which has shown a substantial growth over the past decade.

#### COOPERATIVE RELATIONSHIPS

Much of the effort of the Guidance Service is devoted to working with governmental and non-governmental agencies and professional groups in the promotion of the guidance program. During World War II there were numerous activities of this character. A series of bulletins on workers in defense industries was produced in cooperation with the United States Employment Service and the War Manpower Commission. Close liaison was maintained with all branches of the armed forces and the Selective Service System. Many projects relating to the war effort were published with funds provided by other agencies.

During the summer of 1948 the Chief of the Service acted as adviser to the United States delegates at the International Labor Conference at San Francisco. Other staff members have rendered and are currently rendering important service on various professional committees. Among the organizations represented are: the National Vocational Guidance Association, the Division of Counseling and Guidance Psychologists of the American Psychological Association, and the National Association of Guidance Supervisors.

#### RESEARCH PROJECTS AND PUBLICATIONS

The Occupational Information and Guidance Service devotes a great deal of effort to the production of written materials of various kinds, from one-page mimeographed leaflets to full-fledged printed bulletins. The production of such written material is fundamental in an agency like the Office of Education which is devoted to research and the dissemination of information.

Much has been accomplished in spite of restricted printing budgets. During World War II many of the publications were the result of cooperative effort and were financed with war funds available through other agencies. Other bulletins have been issued with the cooperation of private publishers under special agreements. A manual entitled *Guidance Testing* was published in 1948 under this plan.

Limitation of funds for printing raises the question of the issuance of free publications to guidance supervisors and counselors. It cannot be



denied that effectiveness of the program of the Service depends in large measure upon the extent to which it can place needed material in the hands of field workers. More frequent use of the professional journals and the assistance of an advisory committee representing the professional guidance organizations is suggested as one means of maintaining adequate contacts with guidance people throughout the country.

#### THE FIRST DECADE

The first ten years of the Occupational Information and Guidance Service paralleled a momentous period in the history of our country. Established as the depression era was waning, the Service experienced the "National Defense" stage, the World War II period, and the first of the post-war years. This was a time when vocational guidance and guidance generally were receiving a great deal of attention outside the immediate field of education as well as within it. Guidance was given a great impetus during the depression years but this was meager indeed compared with the gigantic spurt that came with the war. Guidance techniques were adopted wholesale by the Selective Service and the armed forces and thousands of guidance and personnel workers were employed to put them into effect. Other thousands were trained to help with the job. Testing, interviewing, counseling became the watchwords as men and women were called to the colors, selected for various types of training, assigned to duties, or classified for separation from the service. As hostilities came to an end, the Veterans Administration embarked upon a guidance program of tremendous scope in an effort to help service personnel readjust themselves successfully to civilian life.

Thus, more than half the decade was occupied with activities which were directly and indirectly related to the war effort. It is noteworthy that at the same time the growth and promotion of the program throughout the states went forward.

#### THE OUTLOOK

It is against this background that we must consider the outlook for the Occupational Information and Guidance Service. We have now entered the period when guidance is accepted as an unquestioned part of an adequate educational program. There are, however, varying points of view regarding the organization of guidance and its scope and functions.

#### "VOCATIONAL" GUIDANCE *vs.* A WIDER PROGRAM—A BASIC ISSUE

It might be possible for the Service to limit its activities to the special area of "vocational" guidance. No doubt the narrower field could be covered with greater effectiveness. There is also no question that more concentration on vocational guidance would be very helpful, since it may be that vocational guidance has been weakened by emphasis on other



phases of guidance. Schools would doubtless give more attention to vocational guidance if it were more actively promoted. Many counselors in schools have not had adequate training in vocational guidance and because of their teaching background are devoting their energies chiefly to educational guidance.

When the matter is considered further, however, it appears that there are some serious objections to the above proposal. The trend today in education is to integrate related activities, rather than to break them up into their component parts. This same trend should apply to the field of guidance which would certainly be weakened if the program were broken into small segments. Division of guidance responsibilities would increase the difficulties of coordination and would unquestionably result in duplication, conflicting policies and practices, and wasted effort.

There must be unity in guidance if it is to be effective. If education today views the child as a single integrated personality, guidance must also function in the same way. Responsibility for coordination and control of the guidance of an individual must rest with one counselor, rather than with several competing services. This is true even though the counselor may seek assistance outside his own resources for his client. Moreover, the guidance program must be coordinated through all school levels and all types of agencies.

#### RECOMMENDATIONS

The following suggestions are offered for the improvement of the Service:

1. Clarification of policies regarding allocation of guidance functions and responsibilities in the Office of Education is a first step in improving the program of the Occupational Information and Guidance Service. Three divisions now maintain guidance functions: Higher Education, Secondary Education, and Vocational Education. Duplication seems most likely to occur between the divisions of Vocational Education and Secondary Education. The latter has on its staff a specialist for counseling, pupil personnel, and work programs. Both the Occupational Information and Guidance Service and the Secondary Division are concerned chiefly with secondary schools. In the area of Higher Education there seems less possibility of conflict even though a specialist for college personnel programs may be employed. Satisfactory relationships have already been established in such matters as the holding of joint conferences on counselor training and the issuance of the reports on summer guidance offerings in colleges and universities.

2. Special emphasis should be placed upon the promotion of guidance work among out-of-school youth. This area has been recognized in the federal vocational education laws and administrative policies. Many states now include in their state plans for vocational education provision



for the counseling of out-of-school youth. Authorization extends counseling for this group through evening school programs of all types and in such other agencies as may be sponsored through the public schools.

3. Guidance for out-of-school youth should also be promoted through cooperative relationships with other agencies, both public and private. Public agencies include the U. S. Employment Service, state employment offices, and employment services which may be maintained by local government units. Private agencies include those maintained by both religious and secular groups, such as B'nai B'rith, the Y.M.C.A., Y.W.C.A., Catholic organizations, Boys' Clubs, and business and professional organizations. While the Guidance Service has enjoyed relationships with these groups, there is need for a more aggressive program of promotion and coordination.

4. In the development of the over-all guidance program there is need for closer liaison with professional societies and other public and private agencies. These organizations would include basically the groups forming the Council of Guidance and Personnel Associations, and other private associations and foundations, such as the National Education Association and the American Council on Education. Examples of governmental agencies are: Department of Labor, Bureau of Labor Statistics and Women's Bureau; Department of Commerce, Bureau of the Census; Federal Security Agency, U. S. Employment Service; Veterans Administration; and the National Military Establishment.

5. The Occupational Information and Guidance Service should embark on a systematic long range program of research and publications. It is suggested that planning take into consideration estimated needs over a ten-year period. Intermediate goals should be set and allowance made for necessary flexibility. A cycle plan of emphasis could be developed to keep materials up to date and maintain continuous and sustained effort in all areas.

6. Plans should include some fundamental research rather than the mere reporting of data. The study made in 1947 by Clifford P. Froehlich of the Service staff, "Factors Related to the Effectiveness of Counseling", is cited as an example of the type of much needed basic investigation which the Service should sponsor. This would require, of course, greater resources than the Service now possesses. However, since the ultimate progress of guidance and counseling programs depends upon basic research, the Federal Government may very properly supply the means.

7. There should be over-all coordination of the program of research including other public agencies, the states, private organizations, and the professional societies.

8. A more adequate program of field services and coordination of state programs is needed. This would entail, of course, more funds for



travel as well as for additional staff members. The financial problem can be seen readily if one considers the possibility of attempting to provide merely one day of field service per year for each of the forty-eight states.

9. New staff members should have training and experience equivalent to the qualifications required for associate membership in the Division of Counseling and Guidance of the American Psychological Association.

10. Conferences with state supervisors should be held at least annually as was the custom during the war. These could be supplemented by regional conferences and group meetings. One problem in connection with the holding of annual conferences is that attendance of some supervisors is restricted because a number of states impose limitations on out-of-state travel for employees. Biennial meetings are too infrequent to maintain the close relationship which should exist between the Guidance Service and state supervisors.

11. Expansion of counselor training should be continued. This should include further studies on optimum training for counseling, in-service training and up-grading of counselors in service, and training of additional personnel to provide new counselors for an expanded program as well as replacements.

12. Consideration should be given to a program for a minimum of guidance training for all teachers, especially on the upper elementary and secondary levels. This is based on the concept that guidance in schools to be effective must be the responsibility of every member of the staff. Even though counselors may be available to render specialized assistance, teachers must have an adequate guidance background so that they may be able to help their pupils by recognizing the need for guidance when problems arise.

#### CONCLUSION

Though many problems were yet to be solved, the first ten years of the Occupational Information and Guidance Service marked a period of outstanding progress in guidance on all school levels. Establishment of the state programs of guidance supervision alone may be considered an unusual achievement. There seems to be every assurance that the Service may face the next decade with confidence that its leadership will produce even greater contributions to the welfare of the young people in our schools.



## THE TEACHING OF METHODS IN THE PRESERVICE EDUCATION OF ELEMENTARY TEACHERS

by FRANCES HOLLIDAY \*

The purpose of this study is to make a survey of current practices in the teaching of methods in the preservice education of elementary teachers and, through an analysis of the findings, to evaluate the different types of procedures in use in the various institutions.

Two hundred and seventy-two courses from 112 institutions—members of the American Association of Colleges for Teacher Education—were studied. The survey was limited to the areas of arithmetic, language arts, science, and social studies, with 77 courses in the teaching of arithmetic, 46 in language arts (exclusive of reading), 77 in reading, 33 in science, and 39 in social studies.

Probably these courses are somewhat above average in quality. They were chosen, in the first place, from those institutions whose standards meet those of the American Association of Colleges for Teacher Education. They represent those institutions, also, whose courses were so effective that they were willing to submit them for evaluation.

Four types of courses were found:

1. The special methods course in which the purpose is to inform the students concerning various methods.
2. Professionalized subject-matter courses in which the necessary instruction in effective methods of teaching is integrated with the presentation of subject matter.
3. Laboratory courses which bring together in a laboratory situation the integrated curriculum of the modern elementary school, the materials needed in its use, and the procedures that can be used in the developmental experiences of children.
4. Integrated courses in which the study of teaching procedures is a part of the program of student participation or student teaching.

The courses were analyzed to determine their type, content, and the procedures used by the instructors. They were then evaluated in the light of six criteria made by the writer and validated with the help of a group of experts in the field. The criteria are:

1. A good methods course is based upon an acceptable philosophy of education.
2. A good methods course makes available to relatively inexperienced teachers many of the most fruitful experiences of successful teachers.
3. A good methods course is built upon the assumption that there are many ways of attaining desired goals.

\* B.S. 1920, Northwest Missouri State Teachers College; A.M. 1928, University of Missouri; Ed.D. conferred November 11, 1949.



4. A good methods course will help to develop the skills needed in directing the learning activities of children.

5. The teaching in the methods course should demonstrate a variety of effective procedures.

6. The methods course should be clearly related to those sciences which are basic to education.

This evaluation was supplemented by a study of student reactions to these courses, obtained through a questionnaire based upon the ideas underlying the criteria. This questionnaire was filled out by 304 students representing 62 schools from 27 states and the District of Columbia.

The two types of evaluation resulted in much the same conclusions, with the integrated and laboratory courses ranking consistently higher than the others.

The methods courses seem to be having, along many lines, a high degree of success in the preparation of teachers who can go into the elementary schools with some assurance that they can guide the children's activities.

Many of the courses recognize the importance of giving the student a knowledge of many procedures being used by good teachers.

Reports of courses in all four categories include repeatedly the discussion of various methods that are being used by teachers in the field. In fact, both reading and discussion are universally found. Sixty-eight courses report the making of lesson plans showing how various procedures can be used at different grade levels. Fifty report the making of large unit plans. Observations of elementary classroom teaching as a means of accomplishing this purpose were reported by 108.

Growing out of this presentation of many procedures, there is evident in the data a recognition of the fact that there are many ways of attaining the goals of the elementary classroom. Reports of the study of the variety of elementary school philosophies that are prevalent in the country and the different procedures that grow out of these, indicate that the day of following one pattern for all teaching is waning. This is one of the most hopeful phases of the methods teaching described in the courses.

Another real strength of the methods courses which were examined lies in the wide-spread feeling of responsibility on the part of methods instructors to illustrate in their own college classes a wide variety of effective teaching procedures.

It is likely that most of the students in their beginning teaching will teach as they were taught. A few of the courses showed only the conventional types of college teaching, but in 178 of the courses, a variety of methods was being used, some of these illustrating highly creative methods of approaching elementary school activities. The criticism that methods teachers are so poor as instructors that they exert a bad influence on the young teacher is evidently becoming out-dated, due to this



new awareness of the responsibility for being an example in good methodology.

The courses, also, seem to be giving to the students a rich opportunity to become acquainted with the leaders in the four subject-matter areas being studied.

The bibliographies sent with many of the outlines show a wide variety of viewpoints, a comparatively complete coverage of units within each area, and contributions of most of the important writers in the subject-matter field with which the course is concerned. The students who follow the offerings of the bibliographies in some detail and with any degree of selectiveness have the opportunity to benefit from the best thinking going on today.

Another strength in the courses lies in the variety of assignments given in the syllabi.

The assignments listed are on the whole carefully worked out to include a wide variety of activities to be engaged in by the methods students. They deal with such activities as reading, writing, planning for various purposes, observation of teaching, and participation in elementary classrooms. If they are carried out as carefully as they are planned, many students are having the opportunity to gain a habit of making thoughtful approach to the solution of elementary classroom problems.

Many of the courses reveal a consistent effort to give to prospective teachers a knowledge of the subject matter of the elementary school.

Students coming into the colleges preparing to become elementary teachers are often lamentably weak in their knowledge of subject matter. This is particularly true in arithmetic and science though it is true to some degree in all subjects. All types of courses show a desire on the part of the instructors to correct this weakness when it is apparent in the students. This rather new awareness of the need for the *what* as well as the *how* in preparation for elementary teaching should result in a better knowledge of subject matter on the part of the children in the elementary schools.

One of the greatest strengths in many of the courses is found in the opportunities given for many and varied contacts with children.

The carefully planned observations reported, from which students return to the college classroom to draw out the principles of teaching observed; the encouragement given the students to work with children in many out-of-school activities; the opportunity to participate in elementary classrooms as procedures are carried out which are being studied in the college class—these furnish activities that are invaluable to students.



This particular point is, however, one of the greatest weaknesses in other courses.

Many courses fail to mention contacts with children. Some, admittedly, find it not feasible to set up a program including such contacts. The students in their reactions to such courses mention more often than any other criticism the feeling of the need for watching and working with children. They express the idea that no other activity would have developed so well the feeling of security with which they could have gone into their student teaching.

In addition to the lack, found in some of the courses, of the opportunity for wide and varied contacts with children, a few other weaknesses are apparent.

There is almost complete lack of agreement concerning the purposes of the methods course.

This is a defect that demands attention if the methods courses are to show real improvement. Perhaps this is one phase of the methods problem in which the cooperation of teacher education leaders is needed. Teachers who go into the elementary classrooms cannot be equally well trained until some agreement is reached concerning this problem. If the methods course is to be the source of only knowledge of methods, then some agency must be set in motion that will develop skills. If the methods course is to develop skills then facilities for doing so must be provided in all teacher-education institutions. Until an agreement is reached, teacher-education institutions cannot assume the leadership they should have in the improvement of the philosophy and practices of the elementary schools.

Another difficulty lies in the fact that too many of the methods courses are taught without the support of a clearly stated philosophy.

Even those courses in which it is stated do not seem to have been particularly successful in giving the students a functional personal philosophy. One of the fundamental beliefs in the elementary school today is that learning is purposeful. It is almost universally acknowledged that real purposes emerge from a deep-seated philosophy. In the face of this, however, many courses which educate teachers to go into these schools give no outward indication of a basic philosophy. The procedures the course presents will give patterns for the teacher to follow, but the philosophy it radiates will send out creative teachers of children.

Many courses make no attempt to develop even a "safety minimum" of skill which the young teacher can take into the classroom in her beginning teaching.

Every young teacher needs two types of skills: skill in doing some of the activities involved—manuscript writing, arithmetic computation,



reading for various purposes, for example; and skill in teaching activities as various procedures are used in the classroom. This must be taken care of either in the methods course or as the students study methods through actual participation. The students complain over and over, in their comments upon courses, that they do not know what to *do* when they go into the classroom; that they have heard about so many things but have actually done so few of them. Before much improvement can be made in elementary teaching, students, in their training, must gain some skill in doing.

Another need which seems apparent in many of the courses is for greater emphasis upon the use of community resources.

The need for a keener awareness of the possibilities of the community as a source of educational experiences is clearly indicated. A knowledge of how to select those resources of greatest importance in the educational program and how to use them once they are selected must be emphasized some place in the teacher-education program. The methods course seems the logical place for this problem to be solved.

Perhaps the most hopeful sign found in the courses studied is that institutions, instructors, and students are studying the problem critically in an effort to correct the weaknesses of the methods courses and send into the schools teachers who are better prepared for this complex task. Through cooperation of these three groups and through critical self-analysis on the part of each person concerned, the problem of methods can be, at least partially, solved.

#### RECOMMENDATIONS

Certain recommendations grow out of the evaluation.

*The methods course should:*

1. Emphasize a philosophy of education which is in keeping with that which guides practices in the better elementary schools of today—one which:

a) Incorporates the findings of the child study movement in its emphasis upon child growth and development,

b) Emphasizes the need on the part of the teacher for social awareness and social competence,

c) Is reflected so clearly that the students cannot overlook its implications for the improvement of teaching.

2. Give a "safety minimum" of skill by providing much opportunity for participation in using various teaching activities. This may be accomplished partially through the use of socio-drama, but much actual participation in elementary classrooms is essential.

3. Utilize constant contacts with children in the building of understanding and skill in relation to the teaching of those activities with which the course is primarily concerned.



4. Give practice in the use of community resources as they affect the elementary school classroom.
5. Give the needed knowledge of subject matter unless that is provided in some other part of the teacher education program.
6. Instill in the students an awareness of the implications of research for the improvement of teaching and give them procedures by which the findings can be used.

*Needed improvements in the work of the methods teacher are that he should:*

1. Remain so close to the elementary school that he will be able to help his students to find solutions for problems which actually exist in the elementary school classroom.
2. Be a master teacher whose college teaching will constantly demonstrate the procedures teachers should use.
3. Have an "intellectual curiosity" that will prove to be a constant source of inspiration to the students.

*The teacher-education institution should:*

1. Have a philosophy in keeping with that of the elementary school.
2. Provide opportunities for constant contacts with children through the whole teacher-education program.
3. Provide the opportunity for a sound education in academic subjects.
4. Provide all facilities needed for the carrying on of the procedures used in the modern elementary school.
5. Through its own interest in research, prove to be a source of constant inspiration to the students.

*Additional research is needed along many lines in relation to methodology. The need for the following appeared repeatedly during the progress of this study:*

1. A careful study of each of the types of courses used to teach methods and its peculiar contribution in relation to a given school or area of the country might result in much improvement in elementary education in various sections. Each school and each locality has its own problems that such a study might serve to solve.
2. Intensive research is needed in each of the subject-matter areas studied here. This, too, might make a most worthwhile study for a single college or the colleges of a given section to undertake in relation to their own problems.
3. A complete history of methodology would be of service in the study of teacher education. Though much can be found in the field of the history of teacher education in general, there seems to be no source which places real emphasis upon this particular phase. Since decisions of today are made in the light of the decisions of yesterday, a history of methodology might very conceivably lead to improvements in the solutions of the problem as teacher education is facing it today.



## MANAGEMENT OF THE HIGH SCHOOL PRINCIPAL'S OFFICE

by WILLIAM SAMUEL RUMBOUGH\*

The purpose of this study is to make helpful suggestions for the improvement of management practice in high schools. Management is here taken to mean the coordinating and dovetailing which are needed to bring all available resources to bear on the problem at hand. Management is a more restrictive term than administration since administration includes organization as well as management. This study is restricted to management practices only.

There have been selected for analysis certain problems of management which have seemed to escape detailed discussion in the literature of secondary school administration. These problems are mostly small ones when considered individually; but collectively, they loom large in the demands which they may make on the principal's time and effort. They are also important in the effect which they may have on the smooth operation of the school. Three types of problems are examined. First are those which involve the principal directly; the efficient use of his time, routines to help him begin at proper time the tasks which he should undertake, and checks to prevent his delaying or neglecting matters which his long-range plan includes. Another type of problem relates to the school office. The office performs a great variety of functions; this study examines a few of these functions which demand considerable time and attention of the office personnel. The third type of problem is that of informing and coordinating the staff, faculty, and student body with respect to routine procedures and scheduled special events. The study recommends procedures and devices for handling these matters.

### SOURCES OF DATA

The twenty-three books, twenty-eight magazine articles, and two theses which are listed in the bibliography were the most helpful sources of written material which the writer located; these are only a small portion of the literature which was examined, scanned, or read. There seems to have been a wave of interest in the subject beginning about 1925. A chronological analysis of the 53 bibliographical citations appended to the study shows them distributed as follows:

1924 or earlier	8
1925 to 1934	25
1935 to 1944	16
1944 to 1948	4

\* B.S. in E.E. 1927, A.M. in Ed. 1946, The George Washington University; Ed.D. conferred November 11, 1949.



The writer's interpretation of this upward surge which began at about 1925, is that by that time, the rapid growth of secondary school population, the expanded curricular offerings, the added responsibilities which had been taken on by the school and the multiplicity of extra-curricular activities, had necessitated a reorientation with respect to problems of administration. The older, casual methods were proving inadequate. Greater efficiency and more businesslike procedures had become a necessity. Many writers were moved to contribute their experience to the solution of common problems which had become pressing on all sides.

Data concerning managerial practice were drawn from lectures on managerial policies, practices, and devices in the School of Education of The George Washington University and from the general discussions which followed these lectures. Further data were gathered through discussions with friends who are familiar with current managerial practices in schools in and around Washington, D. C.

The writer also used his twenty-nine years' experience as a staff officer and commander in the U. S. Army in situations which involved administrative and managerial responsibilities somewhat comparable to those of a high school principal.

In order to learn of current practices, a questionnaire was sent to a sampling of well administered schools throughout the country. The chief state school officer of each state was asked to name 4 of the schools of his state in which administration is particularly effective. Replies were received from 47 states but one was received too late to be used and another stated that the officer "had no school to recommend". One hundred seventy-nine schools were named by the remaining 45 states. A letter was written to the principal of each of these schools outlining the purpose of the study and asking if he would give 15 minutes to answer a questionnaire. A return-addressed post card was enclosed in order to simplify the principal's reply and 167, or 93 per cent, of the principals returned the card agreeing to answer the questionnaire. One hundred sixty-three, or 97.6 per cent of those who said they would answer it actually did, a telegraphic night-letter follow-up bringing in the last four replies. The "yes" or "no" replies to the questions and the helpful suggestions and remarks made by these successful principals is believed to present a good outline of the best present-day management devices and procedures. It should be remembered, of course, that each of these schools had established a reputation for efficiency and it may be assumed that the practices revealed are well above those of the average of schools throughout the country. This high level of effectiveness of reporting schools is in keeping with the purpose of the study which is not to discover wherein current management is weak but is rather to note and to capitalize on managerial practices which are strong.



## OVERVIEW OF THE FINDINGS

In a study conducted in 1928, Reavis and Woellner\* found that the group of principals who replied to their questionnaire were spending from 20 to 25 hours per week in the office. Answers to the present writer's questionnaire show that the 163 principals who replied are spending an average of 35.4 hours per week in the office, the median being 40.3 hours. It appears that office work demands have so increased during the last 20 years as to all but confine many principals to the school office. Remarks of several principals on the questionnaires indicate a feeling of being overburdened, weighted down by administrative burdens.

The main portion of the present study is devoted to the development of procedures which are intended to systematize, decentralize, and speed-up the principal's office work, thus permitting him to give more of his time and energy to supervisory and curricular responsibilities and to other important duties outside the office. The study develops twenty-three procedures. The need for each is indicated by reference to current practice in well-managed schools as revealed by the questionnaire and is often supported by quotation from the literature on the subject. Effort has been made to describe each procedure as briefly as possible and yet with sufficient detail to permit the reader who may desire to do so, to follow the proposed procedure as written or to adapt it to his own situation. These procedures cover:

1. Organizing the principal's time: office hours, tickler, work-organizer, the principal's desk, check as to use of time, management controls in the care and upkeep of the school and its equipment, economy of time in personal contacts.
2. Organizing certain important operations of the school office: information bureau, telephone calls, correspondence, reports, management control of supplies and equipment, detailed financial estimates of projects, use of office machines and other devices.
3. Keeping staff and faculty informed and coordinated: responsibilities definitely assigned, organizational chart, administration handbook, scrapbook of blank forms, packet for substitute teacher, school calendar, bulletin board, mail and message box, check slip.

*Office Hours.*—As for regular office hours, it is proposed:

- a) That they be chosen with due regard to the convenience of those who need to confer with the principal;
- b) That they be limited to two hours per day during school hours, to one hour immediately after the dismissal bell on two afternoons per week and to one period of two hours on a designated evening;
- c) That the principal post these hours on his office door, publish

\* William C. Reavis and Robert Woellner "Office Hours of Secondary School Principals," *School Review* XXXVI (Nov. 1928) 664.



them for students, parents, and public, and make earnest effort to secure the teamwork of his office force, staff, faculty, and parents to restrict callers and calls to these designated hours except in case of emergency or near-emergency;

- d) That the principal make it known informally that he is usually available in his office during the lunch period for casual contacts and minute-conferences;
- e) That the principal endeavor to do all his routine office work during the approximately nineteen hours suggested above, thus freeing himself for his other important duties outside the office and for work in the office which requires sustained mental effort uninterrupted by callers, telephone calls, or other diversions.

*Organizing His Work.*—Procedures are suggested for the organization and use by the principal of a tickler system, a work organizer, and for the arrangement of his desk and surroundings to the ends (1) that he may be reminded of each task at such time prior to performance as will permit unhurried and orderly preparation, (2) that he may plan his work on a long term, on a weekly, and on a daily basis and thus free himself from the annoyances of unprepared-for, pressing demands on his attention and, (3) that, while at work, he have needed materials immediately at hand and in orderly array.

*Check as to Use of Time.*—Man is a creature of habit. Many things which he does seem necessary or proper merely because he has been doing them in the past. Some things are done in a certain way because he has grown accustomed to doing them in that way. An occasional check as to the use which the principal is making of his time may reveal things which he might wish to change. Such a periodic check is suggested.

*Inspections.*—Checking on janitorial service is only one purpose of inspection. Another purpose is to note the standards of neatness and order of the various teachers and the discipline in the several classrooms with respect to the care of desks and equipment. A third purpose is to note the need for repairs. It is economy to effect repairs promptly, for the appearance of needed repairs invites rough usage and vandalism. Pupils tend to respect well-kept buildings and equipment. The principal may decentralize the immediate care of the various rooms and portions of the buildings and grounds but he still remains responsible for the entire plant. It is suggested that only by frequent inspections can he know conditions and thus be in position to fulfill his obligations to the school system which employs him.

*Organizing Certain Important Operations of the School Office.*—Many of the principals who replied to the questionnaire gave credit to the school secretary for the school's reputation for administrative efficiency. Good office organization and operation can relieve the prin-



principal of much of the burden which, in some cases, is proving almost overpowering. Several procedures are proposed for organization and operation designed to relieve the principal of many details which can be handled as well or better by others. One is an information bureau, which may consist of just one person. But this person should be selected, trained, and supplied with the information and inexpensive devices which will permit her to handle many telephone calls or callers with such complete satisfaction that they will not need to see or to be connected with the principal. Another is the organization of a correspondence tickler system which permits the decentralization of the preparation of many letters and reports while assuring that each is handled in proper time and that the principal sees each important paper before it leaves the school. Other procedures described are those for management control of supplies and equipment and for the preparation of detailed financial estimates for repairs, improvements, and additions. These procedures would decentralize the work on these important matters, would systematize their operation, and would keep the principal in control of major projects.

*Keeping Staff and Faculty Informed and Coordinated.*—If a person who is engaged on a project is not fully informed as to his responsibilities, he is forced either to ask many questions or to guess at what is expected of him. It is also likely that he will overlook some important operations while overdoing others of less importance. He is also almost sure to feel uncertain and, as a consequence, he will work at less than full efficiency. It is essential to good administration, therefore, that each member of the staff, faculty, and student body be informed as to his responsibility, that he be given a good idea as to the functions of those with whom he works and that he be kept aware of the progress which is being made on each of the projects in which he is engaged. Some techniques and procedures to accomplish these purposes are presented.

*Organizational Chart.*—Forty-nine of the schools which replied to the questionnaire use an organizational chart to assist in coordinating the work of the school office; an additional thirty-seven believe such a chart would be helpful. Except for a very small school an organizational chart is proposed, this chart to show lines of responsibility and principal duties of each member of the office.

*Other Devices for General Coordination.*—Another device for general coordination is the administrative handbook. It is felt that the handbook is a rather comprehensive study in itself; consequently the present study merely outlines the general purposes and make-up of the handbook. Since most schools use numerous blank forms it is believed that a new teacher, perhaps the older ones too, would find a scrapbook of blank forms helpful, each form to be filled out as for a typical case and to be accompanied by a page in the book giving full and specific



directions for its preparation and disposition. It is also proposed that each new member of the staff and faculty, when employed, be invited to confer with the principal, that the new member's duties be discussed and that the new member be given a written outline of her duties.

Replies to the questionnaire show that practically all schools use the bulletin board and have a routine procedure by which it is taken care of each day, a pigeonhole mail and message box for distribution of mail and materials to staff and faculty, and a check slip on which members of the school place their initials to indicate completion of some specified task. Each of these devices is discussed briefly and procedures are suggested by which each may be used to good advantage.

*Packet for Substitute Teacher.*—In a secondary school the substitute teacher may be responsible for the instruction of one hundred fifty students in her five teaching periods. It is thus a matter of considerable importance to the work of the school that she be able to fit into the situation smoothly and to guide learning with the least divergence from the plan of the regular teacher. The writer believes that school administration should give high priority to procedures which are designed to make the substitute teacher more effective. A procedure is proposed to accomplish this purpose. Each regular teacher would prepare and would keep up to date a schedule designed to help orient her substitute if the latter should be needed. This schedule would show for each period: the room, the subject being studied, the names of a secretary and vice-secretary who will call the class roll and handle the attendance record, if desired, and the names of four students who have been designated and who are able and willing to assist the substitute teacher in conducting the class, these students having been carefully selected by the regular teacher for proficiency, character, and leadership. The regular teacher would keep her lesson plan book and class roll book in a designated place in the teacher's desk. Early in the morning, as soon as the need for a substitute is known, a member of the staff would collect a copy of each book which the substitute teacher will require and would determine and place a paper marker in each book outlining the lesson assignment for the day and a suitable assignment for the next day. If there are regular teachers with free periods and if it can be arranged, the staff member would also designate regular teachers to introduce the substitute to each class and to offer such assistance as may be necessary or desirable. It is thought that such a procedure would be more than worth the administrative effort which it would require. It would certainly be appreciated by the substitute.

*School Calendar.*—The well administered schools which replied to the questionnaire regard the school calendar as an important administrative device. A procedure is described for the preparation of such a calendar. This procedure calls for the designation by the principal of a calendar



committee of faculty and students. The record device is a box which contains thirteen eight inch by ten and one-half inch cards, twelve of them ruled for the twelve months of the year and the thirteenth as a general file. Each card is kept in a manila envelope labeled for the particular month and holding also the original records of requests for items to be entered on the calendar for that month. The procedure calls for the committee at the beginning of the year to gather data for the entire year insofar as dates have been designated. This data will include the official calendar drawn up by the school board or superintendent's office; it will include opening and closing dates, holidays, end of report periods, teachers' workshops and meetings, and other official dates or events. Athletic schedules, parties, dances, and other extracurricular events of general interest will be assembled. The committee will have before it a record of the activities of previous years and it will initiate action well ahead of events, suggesting that this or that committee complete its plans and request its dates. In this way the calendar record can be assembled well in advance and the affairs of the school can be scheduled in orderly fashion.

The procedure calls for the habitual display on the school's main bulletin board of calendars for two months, the current month and the following. These are large calendars, 24" x 36" being suggested, thus giving a space of about four inches square for each day of the month. These calendars are ruled off by a member of the mechanical drawing class and the various types of events are entered in mechanical drawing lettering in distinctive colored inks, for example, black for curricular events, green for minor extracurricular events, red for major extracurricular events, etc. On the first day of a new month, for example April, the calendar for March would be taken down, that for April, which has already been displayed since March 1st, is moved over to the left-hand space vacated by the withdrawn March calendar and the new calendar for May is put up at the right. There are thus always before the school, calendars showing officially approved dates for at least a whole month ahead.

#### GENERAL CONCLUSIONS

The above sketched findings may be considered special conclusions or procedures. In addition, there are certain general conclusions which the study has developed. These are:

1. In general, high school principals find it necessary to spend long hours in the office;
2. A high school principal might well give attention to more efficient management of his time; to this end he might look upon the high school office as merely an extension of himself, seeking to transfer to the office



such responsibilities hitherto carried by himself as the office may be capable of performing as well or better;

3. The administrators of well managed schools use numerous devices and procedures each designed to increase the efficiency of some phase of managerial work; principals are alert to recognize the value of a suggested new device or procedure which may effect further improvement in management;

4. Time spent in preparing material which informs and coordinates staff and faculty helps make the school operate smoothly, reduces the need for managerial action to correct misunderstandings, and thus saves the principal's time.



# THE DEVELOPMENT OF MORE EFFECTIVE METHODS OF TRAINING ELECTRONIC TECHNICIANS IN THE NAVY

by HOWARD ODIN JOHNSON \*

## THE PROBLEM

This dissertation is concerned with the experimental development of more effective methods of training electronic technicians in the Navy.

## DEFINITION OF TERMS

Electronic technicians are enlisted personnel of the Navy, charged with the responsibility of maintaining radio, sonar, and radar equipment. Most of the technicians on entering the training with which this dissertation is concerned were high school graduates, 18 to 20 years of age, and without previous experience or training in electronics. The expression "maintaining equipment", refers to duties ranging from simple adjustment to complex alteration and repair of electronic equipment. "Electronics" as used herein, refers to a phase of electrical application involving vacuum tubes. This definition applies to civilian as well as military aspects of the science. The word "methods" is used in its broadest sense to include classroom techniques, subject matter content, class size, instructor assignment, scheduling, and other aspects that may influence the teaching-learning situation. More effective methods as used here are those that permit the training of students in a shorter period of time without sacrificing present standards, or those that result in a reduction in eliminations due to scholastic causes, or those that provide more effective training in an equal or shorter period of time than was previously required.

## DEVELOPMENT OF METHODS

It was believed that many simple, well-understood principles of psychology and learning were not being closely followed in Naval Service Schools. It was thought that if instruction could be devised that would follow the principles more closely, greater efficiency would result. These principles are briefly described in a book by Fox, Bish, and Ruffner for a training program for administrative officers in Naval Service Schools.† They were selected with the problems of Naval Service Schools in mind and list 7 characteristics of learning, and for each characteristic, 3 principles of teaching.

The salient features of the experimental method included integration

\* Ed.B. 1934, State Teachers College, Eau Claire, Wis.; A.M. in Ed. 1948, The George Washington University; Ed.D. conferred February 22, 1950.

† J. H. Fox, C. E. Bish, and R. W. Ruffner, *School Administration*, New York, Prentice-Hall, 1948.



of lectures with laboratory work and the teaching of mathematics when the need arises. The mathematics taught was limited to that which was made necessary by theory and practice. It was taught when needed, and in the amounts needed.

Class size was limited to 14 or 16, and the class was taught by a single instructor for the entire course, when possible. There was a greatly increased emphasis on practical work and a lessening of emphasis on theory. To a great extent, the experimental method was an application of the functional concept of education. The experimental method attempted to use procedures indicated by the nature of the process of learning.

The student work benches were designed and arranged to facilitate the teaching outlined above. The benches were arranged in the shape of a "U", with the instructor's bench at the open end of the "U". Students were seated on stools around the outer perimeter of the "U". The instructor worked inside the "U", and thereby was able to move from student to student with a minimum of disturbance. In the latter portions of the course where large test equipment was needed the "U" was enlarged, and students and instructor worked inside it.

#### ELECTRONICS TRAINING PRIOR TO THE EXPERIMENT

The methods of teaching prior to the experiment may be described as traditional, resembling closely those used in colleges of engineering. The time was divided equally between lectures and laboratory work, with the lectures divided between mathematics and theory. The laboratory was intended to provide practical exercises in applying the theory and mathematics. Lecture classes ranged in size from 40 to 65 students for a single instructor. One instructor usually taught two periods of mathematics daily, another instructor, two periods of theory, and a third, four periods of laboratory. According to plan, both of the lecture instructors were to assist with the laboratory work, but in practice, seldom more than one was present.

The course was organized into two-week instructional units. Comprehensive examinations were given every other Friday. On the basis of these examinations, students were promoted to the following two-week unit, were retained for a second two-week period of instruction in the unit (called a repeat), or were failed and eliminated from the school.

The number of repeat periods for each student for a year preceding the experiment were 1.63, and eliminations, largely from scholastic causes, were 25 per cent of enrolling classes. With each two-week promotion, the students were under new instructors.

Electronics training for enlisted men was divided into three levels, A, B, and C. Level A was primary training given to newly enlisted men



with no sea duty experience. Level B was advanced training usually given to men during the second enlistment who had completed two years of sea duty. Level C was special training, given to the higher-rated enlisted men, who had completed two or more enlistments. This study is concerned only with Level A training.

Level A training was 42 weeks in length, and was divided into two parts, the basic electronics phase of 26 weeks, and the equipment phase of 16 weeks. Basic electronics consisted of studies of direct current, alternating current, and general electronic circuits, primarily radio. The equipment phase of the course consisted of instruction in the maintenance of Navy radio, sonar, and radar equipment. The experimental method was used only with the basic portion of the course, but instruction was evaluated in both phases of the course.

#### EXPERIMENTAL INSTRUCTION

Five classes of 14 students each were selected for experimental instruction. The first class convened on 25 April 1949, and the others at two-week intervals thereafter. The students selected for the experiment were as representative as existing measuring devices, information available, and judgment permitted. The first experimental class was under experimental instruction for 16 weeks, and the other four, for 18 weeks each. At the end of this period, the students joined a regular class that was entering the equipment phase of the course, the last 16 weeks of the regular 42-week course. In the equipment phase of the course, the regular type of instruction was used.

The instructors used in the experimental and regular classes were electronic technician petty officers, U. S. Navy. The rates of the instructors were predominately chief and first class, with a sprinkling of lower rated men. Few instructors had received instruction beyond high school, other than Navy technical training. Although a few had had one or two years of teaching experience in Navy Schools, the majority had had no previous training or experience in teaching. The experiment was conducted at the U. S. Naval School, Electronics, Treasure Island, San Francisco, California.

#### EVALUATION OF EXPERIMENTAL INSTRUCTION

The determination of whether improved methods of instruction had been developed required a comparison of the experimental and regular student. It had been planned originally to base the comparison on the "paired" students in the experimental and regular classes, but due to the more rapid progress of the experimental students and the large number of repeats and eliminations of the paired students in the regular course, ability to make direct comparisons of the paired students decreased progressively until accurate comparisons were not possible. Direct com-



parisons of paired students were made as far as possible, but it was necessary to supplement these comparisons with other methods.

The supplemental comparisons were made by administering comprehensive examinations to the experimental classes and regular classes that had completed instruction in comparable subject matter. Examinations were given at the end of the direct-current and alternating-current portions of the course. Two examinations were given at the end of electronic fundamentals, coinciding with the completion of the experimental instruction.

In the equipment phase of the course, the experimental and regular students were compared by means of biweekly examinations, and biweekly evaluations of students' strong points, weak points, ability in practical work, ability in theory, and knowledge of mathematics. Evaluations were made by means of a prepared form. In both the experimental instruction and the equipment phase of the course, the regular classes with which the experimental students were compared were comparable within the limitations of existing measuring devices, information, and judgment. There was one significant difference between the experimental and regular classes, in favor of the regular class. By the time they reached the equipment phase of the course, about 25 per cent of the weakest regular students had been eliminated for scholastic reasons. All the experimental students, strong and weak, began the equipment phase and were compared with a selected group.

#### SUMMARY OF ACHIEVEMENTS OF EXPERIMENTAL INSTRUCTION

The instruction time was reduced from 42 to 32 weeks for one class and to 34 weeks for the other four classes without sacrificing standards of instruction.

The repeat periods of instruction were reduced from 1.63 two-week periods per student, characteristic of the regular instruction, to .37 for the experimental classes. Repeats for the experimental students occurred only during the equipment phase of the course where regular instruction was employed.

Actually the reduction in the number of repeats shortened the course length from between 44 and 46 weeks to approximately 36. Based upon the number of repeat periods given in regular classes during the preceding year for each 100 students entering the course, the graduating class would contain 10 students who received 42 weeks of instruction, 41 students who received 44 weeks instruction, and 24 students who received 46 weeks instruction. Twenty-five would have been eliminated. For every 100 students entering experimental instruction, 63 would graduate with 34 weeks instruction, 25 with 36 weeks instruction, 8 with 38 weeks instruction, and 4 would be eliminated.



#### REASONS FOR THE IMPROVED PERFORMANCE OF EXPERIMENTAL STUDENTS

Improved scheduling appears to be a factor in the improved methods. In the regular course about 20 per cent of the instructional time had been devoted to review and examinations. Although staff size should have permitted a student-instructor ratio of 15 to 1, this had not been previously realized. The scheduling of lectures on theory, laboratory, and mathematics instruction had not been coordinated adequately. The experimental method appears to have overcome these difficulties.

The experimental method did not follow the practice of allocating two days out of ten to review and examination. The time saved was used for more appropriate teaching-learning activities. The experimental classes were 14 students to one instructor. This ratio was well within the school's capacity to support without additional instructors since the allocation for the school was 10 to 1. This was a remarkable improvement over the regular lecture classes of 60 to 1 and the laboratory of 30 to 1. The improved classroom ratio seems to contribute significantly to the improved instruction.

The combining of lectures in theory, mathematics instruction, and laboratory work in a single room under the direction of a single instructor, made functional teaching possible. It is believed that this was one of the most important contributions to the improved method. Combining theory and practical work made it possible for the student to engage in activities that simulated work situations. Thus a close relationship between learning activities and needs was established. Teaching that is closely related to student needs tends to eliminate unnecessary subject matter. The experimental method demonstrated that a considerable amount of subject matter could be omitted without lowering the efficiency of the graduates.

The assumption that the mathematics needed by an electronic technician could be taught with the theory and practical work was proved by the experiment. In only the radar fundamentals phase of the course was there any complaint concerning inadequate preparation in mathematics. Investigation revealed that this was confined to a specific application not understood by the students. In all other phases of the equipment portion of the course, students seemed to have an adequate command of mathematics skills. The significance of this outcome should not be overlooked. In the regular course, 120 hours were devoted to the teaching of mathematics as a separate unit. Teaching mathematics as an integral part of the experimental method accounted for a considerable part of the total saving in instructional time.

The favorable class size and the arrangement of the classrooms are believed to have contributed significantly to the improvement of instruction, by enabling the instructor to move with ease from one student to another with minimum disturbance to others. The classroom and class



size made it possible for the instructor to give maximum attention to individual students, thereby better adjusting the instruction to the needs of the individual.

#### CONCLUDING STATEMENT

The experiment indicates that it is possible to achieve equally good results by methods that permit a 25 to 30 per cent reduction in instructional time. Although the experiment suggests a potential saving in the number of instructors needed in Service Schools, as well as a saving in the cost of instruction, probably its most significant contribution was demonstration of a way of very significantly increasing the length of the period of utilization of skilled men in the Navy.



# CRITERIA FOR THE ADMINISTRATION OF LIBRARY SERVICE IN CHRISTIAN EDUCATION IN THE INDEPENDENT, AUTONOMOUS CHURCH AT THE LOCAL LEVEL

by JAMES HERRICK HALL \*

## THE PROBLEM

This study is concerned with the development, validation, and refinement of criteria for the administration of library service in Christian education in local churches which are independent and autonomous. It is hoped that it will aid in re-evaluating current church library service in Christian education and serve as a guide for the improvement and extension of that service.

To formulate basic hypotheses concerning the study of church library service, to formulate and validate standards for the administration of church library service, and to develop an instrument by which to evaluate church library service in terms of the criteria set forth were the three major purposes of this study.

## THE PROCEDURE

The historical development of church library service was reviewed. From a study of the literature, tentative criteria were formulated. These criteria were discussed with educational consultants and were refined in the light of a preliminary questionnaire which identified local church library situations where large collections and circulations of library materials were reported. A special survey questionnaire, addressed to 96 selected library situations, sought to evaluate library practices in terms of the tentative criteria developed in the survey of related information. All except one of the 96 libraries responded. The data gathered therefrom were tabulated and analyzed.

Normative survey interviews were employed to revise and refine the tentative criteria following the testing of these criteria. Interviews concerning the problem of this study were held in the following centers of library administration:

1. Columbia University Library Science Library, New York, New York.
2. Chicago University Library Science Library, Chicago, Illinois.
3. Peabody College Library Science Library, Nashville, Tennessee.
4. University of Cincinnati Library, Cincinnati, Ohio.
5. Baylor University Library, Waco, Texas.
6. Southern Baptist Theological Seminary, Louisville, Kentucky.

\* A.B. 1947, Baylor University; A.M. 1948, The George Washington University; Ed.D. conferred May 31, 1950.



7. New Orleans Baptist Theological Seminary, New Orleans, Louisiana.
8. Southwestern Baptist Theological Seminary, Ft. Worth, Texas.
9. The Divinity School Library, Chicago University, Chicago, Illinois.
10. The American Library Association Library, Chicago, Illinois.
11. The International Council of Religious Education Library, Chicago, Illinois.
12. The Dargan Memorial Library, Sunday School Board, Nashville, Tennessee.

Interviews were held with nine members of the administrative staff of the Sunday School Board at Nashville, Tennessee. The problems were discussed at two regional church library workshops and at local church libraries in Baltimore, Maryland, and Dallas and Ft. Worth, Texas.

#### BASIC HYPOTHESES OF THE STUDY

The hypotheses of this study are as follows:

1. *Church library service administration should be considered as an educational service and the basic purposes, principles, and functions of educational administration should characterize the administration of church library service.*
2. *Church library service administration should provide for the management, supervision, and evaluation of a learning-teaching aids resource center in Christian education at the local church level.*
3. *While public education has stated goals which cannot include the distinctive goals of Christian education, the latter should not overlook the opportunity to contribute to the needs of those served by Christian education in the areas of need identified in the stated goals of public education.*
4. *Church library service carried on in a local church is positively correlated with the leadership training qualifications of the library staff of the given church in the area of professional education qualifications as well as in the area of Christian education qualifications.*
5. *If it is assumed that church library service is an integral part of the local church program of Christian education, undergraduate and graduate training curricula for Christian education leadership should include courses and/or units on the subject of church library service.*
6. *Some areas of tentative church library service administration standards may not be validated through the use of normative survey questionnaires and interviews. Such areas should be identified as problems for research techniques other than the normative survey.*

#### HISTORICAL DEVELOPMENT OF CHURCH LIBRARY SERVICE

The historical development of Church Library Service was surveyed and a brief resumé was set forth. The resumé was confined to the



historical development of Church Library Service as recorded in the publications of the Southern Baptist Sunday School Board, Nashville, Tennessee. These historical data are available in the Dargan Memorial Library at the Sunday School Board, 161 Eighth Avenue, North, Nashville, Tennessee. The resumé covers the period of 1923 through 1948.

#### SURVEY OF RELATED INFORMATION

The survey of related information was drawn from a wide range of information in educational fields which parallel Christian education. The resources of public library, public education, and religious education were used. Reports of studies and administrative practices set forth by the American Library Association, the Cooperative Study of Secondary School Standards, the International Council of Religious Education, and the Department of Church Library Service of the Southern Baptist Sunday School Board were summarized in this study. These reports form a frame of reference for the tentative criteria which were developed in the areas of church library administrative purposes and principles, management, supervision, and evaluation.

#### THE DEVELOPMENT OF THE CRITERIA

The criteria are set forth as standards by which to determine the efficiency of library administration practices in Christian education in the independent, autonomous church at the local level. The statement of these criteria follows hereinafter.

##### Criterion One

*Church library service purposes should be consistent with the general aims of education and with the specific aims of Christian education. While administration as a means of achieving this service must also be consistent with Christian education, efficient administration will be consistent with educational principles the soundness of which has been established objectively.*

The specifications needed to satisfy this criterion follow:

1. Church library administration should afford activities and services to encourage and assist the church administrative and organizational leadership to grow intellectually, educationally, and spiritually.
2. Church library administration should be designed to increase knowledge, improve understanding, enlarge appreciation, refine skills, and develop good habits of utilization of learning and teaching resources.
3. The administration of library service in Christian education should seek to recognize the competency of the individual under God in religion.
4. The administration of library service in Christian education should



seek to implement the basic aims of education and the distinctive aims of Christian education.

5. The administration of library service in Christian education should develop, utilize, and conserve the values of interaction between and among all levels of Christian education service.

6. The administration of library service in Christian education should be integrated with and a part of the total program of education in the local church and in the denomination.

7. The administration of library service in Christian education should be under the authority and financial support of and responsibility to the local church.

8. The administration of library service in Christian education should help to supply means for meeting the felt needs of the individuals and groups who make up the local church.

9. The administrative leadership—the staff—in library service in Christian education should be capable, trained in administrative skills, and conversant with educational theory and practice.

10. The administration of library service in Christian education should initiate, carry on, improve, and appraise the service of a resource center for learning and teaching aids in the local church program.

#### Criterion Two

*The administration of library service in Christian education should design, operate, and measure the organization and disposition of men and materials so that church library service may function efficiently as a resource center of learning and teaching aids.*

The specifications needed to satisfy this criterion follow:

1. Good management in church library service should be guided by sound principles of planning.

2. In the organization and disposition of personnel in church library service administrative management should be guided by principles of good human relations in seeking to implement the purposes of the program of Christian education.

3. Good church library service administrative management should operate under an environment which contributes to the motivation of learning and teaching.

4. Good church library service administrative management should design and operate a sound basis for the objective selection of materials to be utilized in the resource center for learning and teaching aids.

5. Good church library administrative management should design and operate an effective resource center for learning and teaching aids.

#### Criterion Three

*The administration of library service in Christian education should design, operate, and measure adequate provision for the improvement,*



*through learning, of all personnel who serve and are served by the church library.*

Specifications needed to satisfy this criterion follow:

1. The patterns of public library, public school, and denominational supervision and educational guidance should be considered as resources to aid church library service.
2. The administration of library service in Christian education should develop, execute, and weigh a comprehensive plan for the supervisory function of church library leadership.
3. Organized supervision in church library administration should be coordinated at local, regional, state, and national levels and cooperation therein should be upon a voluntary rather than a coercive basis.
4. The administration of church library service should provide supervision through library use, reference, curriculum enrichment, and guidance services which are consistent with the general characteristics of learning and the implications thereof upon teaching.
5. Where church library administrative supervision engages in supervisory planning, induction and in-service training, curriculum enrichment, and related supervisory procedures, techniques should be used for specific goals and personnel involved should be suited to the specific tasks assigned.

#### Criterion Four

*The administration of church library service must make adequate provision for evaluation.*

The specification needed to satisfy this criterion follows:

1. In church library administrative evaluation of the criteria dealing with administrative purposes and principles, management, and supervision, areas should be identified where each specification may be measured and a practical checklist therefor should be developed.

#### FINDINGS

The data made available by 79 of the 95 responding local church librarians reported the library practices of churches whose combined membership was 91,250, whose combined number of library books was 83,172, and whose combined library circulation for 1948 was 115,936 books. There were 29 respondents who had taken study course training as provided by the denomination but had not taken professional courses in education at the college level. The remaining 50 respondents had taken professional courses in education at the college level as well as the denominational study courses. Data were also made available through survey interviews with a wide range of leaders and conferees in education and library service. Some of the significant findings which



supported, differed with, or suggested refinement of the criteria and specifications are set forth as follows:

#### Criterion One

The data tend to show that church library administration seeks the improvement of leadership in Christian education but recruitment of more capable leaders is not greatly aided by church library service.

The service seems to be designed to increase knowledge, improve understanding, enlarge appreciation, refine skills, and develop good habits of library utilization. However, the qualifying sections of the checklist questions hereupon show little practice.

The libraries reported that the principle of the competency of the individual in religion is recognized. Despite the recognition of this competency in principle, the practice of providing access to the choices which may be made in religion was not scored as high as was the basic theory.

Reporting church librarians feel that they conserve the values of public education but that public education fails to reciprocate and conserve the values of Christian education. They give considerably higher emphasis to the distinctive aim of Christian education than to the basic purposes of public education as set forth by Carr.

The practice of developing, utilizing, and conserving the values of interaction between all levels of Christian education service is wide. Over 40 per cent of the reporting librarians indicated that they considered the denominational agencies more interested in their own program promotion than in helping the local library service to meet its problems.

The administration of library service is only partially integrated with the total program of education in the local church and in the denomination. Weak areas are the range of resources afforded in the library, status of the library program, and provision for information on educational guidance.

The church libraries surveyed were administered by, supported by, and responsible to the local church. They were not ends in themselves but were means of meeting felt needs in Christian education.

Practices in leadership training were significantly inadequate. While the church library is a resource aid for Christian education, training in Christian education is not required for librarians and far too few have a wide range of such training. While church library service is an educational service for Christian education, training in public education and/or library science is not required and comparatively few librarians reported such training. In the light of the tentative criteria used, those respondents with professional education as well as study course training attained higher evaluation scores than those with study course training alone.

The church libraries surveyed do not operate significantly as resource



centers for all learning and teaching aids. In the majority of instances audio visual aids are cared for as a separate service.

The data reveal that the criteria, specifications, and checklist questions need revision and refinement to eliminate ambiguity and to qualify the checklist for more efficient use in evaluation. Significant refinements are set forth in the conclusions of the study.

#### Criterion Two

The concept of management planning was reported as essentially limited to that afforded by the *Church Library Manual*. Therein the *representative* committee is recommended. The respondents were almost totally unfamiliar with the *creative* committee. The principles of good human relations seem to obtain. Effective factors in motivation are in evidence but there seems to be a lack of understanding of the significant differences between motivation and promotion. The basic principle for the selection of materials seems to be negative censorship. Approved book lists are generally used. While this study was not centered upon the technical operation of the library, data show that public library and public education practices obtain in church libraries with the exception of the utilization of community resources.

Refinements hereupon were suggested and are reflected in the conclusions of the study.

#### Criterion Three.

The church libraries surveyed make very little use of the supervisory services of public library, public education, or secular commercial concerns. Such service improvement as is practiced is based essentially upon help from the denomination. Supervisory planning is not understood and the role of research is employed only in a limited fashion. Likewise, coordination of supervision is not understood. The range of supervisory services is limited. The supervisory techniques employed are basically those of induction and in-service training and are limited to the study of the manual, either in local church study courses or in regional workshops.

While Criterion Three seems to be in operation less than Criteria One and Two, it cannot be considered invalid upon a basis of this study. Further study and refinement by other techniques of research should be attempted.

#### Criterion Four

The evaluation of church library service has not been practiced. This study has initiated research in this area. The evaluative instrument developed in this study should be refined and further evaluation attempted. Tentative refinements are included in the study as bases for further research.



## GENERAL CONCLUSIONS

Some of the more significant conclusions dealing with the hypotheses include the following:

*Hypothesis One.*—Upon a basis of the evaluation of 79 local church libraries in which 59 per cent of the practices were reported as followed, this hypothesis tends to be valid.

*Hypothesis Two.*—Since the practices of the church libraries herein evaluated are subject to objective measurement as management, supervisory, and evaluative functions of church library administration, this hypothesis tends to be valid.

*Hypothesis Three.*—In the area of goals derived from public education, a majority of the respondents gave evidence that the goals were recognized. Thus, it seems that Christian education does not overlook the opportunity to contribute to the needs of those served in Christian education in the areas of public education purposes.

*Hypothesis Four.*—The over-all score of the 79 respondents upon leadership training was 57 per cent. The over-all score of the 79 respondents upon library practices set forth in the checklist was 59 per cent. Leadership training was displayed as a tendency to improve the effectiveness of church library service. Leadership training in professional as well as Christian education was shown to tend toward greater efficiency in church library service than leadership training in Christian education alone.

*Hypothesis Five.*—The survey of related information demonstrated that a very limited emphasis is given in undergraduate and graduate training curricula of the denomination for Christian education leadership. There is need for additional research by other techniques in this area.

*Hypothesis Six.*—Since this study identified significant areas of church library service which cannot be measured by normative surveys and interviews, this hypothesis tends to be valid.

## RECOMMENDATIONS

The recommendations of this study are set forth hereinafter in the four areas of the criteria as follows:

1. *Criterion on Administrative Purposes and Principles.*—Church libraries should provide a written set of helps to guide in the use of the library. Experimental research should be used to develop these guides and measure their usefulness.

All of the members of the library staff should know and understand the basic beliefs of the organization in which the library serves.

In subsequent evaluation of church library service, care should be exercised to balance grading which measures reciprocal practices. Less subjective scoring should be practiced.



More definite cooperation between Christian and public education leaders in community education projects is suggested as a remedy for the lack of mutual understanding of the goals of these two educational groups. Such cooperation might include curriculum development or school-community activities.

The *Church Library Manual* should be revised to include a comprehensive and constructive approach to the question of public education goals.

Since so great a part of the Christian education program is based upon stewardship and giving, the church library should give more emphasis to a Christian approach to the public education goal of *economic efficiency*.

The denominational agencies should study the significance of the data which reveal that the 79 respondents to this study grade their cooperation with the denomination at 88.6 per cent while the denomination's comparative interest in the local church and the denomination's program was graded at 58.2 per cent. The difference seems to be significant and to be worthy of objective research.

Experimental research might measure the effectiveness of a centralized program of library service as compared and contrasted with a decentralized program of library service. In such a study the experimental group would conduct a library program in which resources other than books would be administered through the library.

Research, perhaps of an experimental type, should be attempted to evaluate the effectiveness of the church library providing catalogues and descriptive literature about denominational and other schools and colleges. Church libraries should make more effective provision for educational guidance.

The financial support of church libraries should come from the church budget and should compare favorably with quantitative standards set forth by public and public school library administration.

More adequate provision should be made through research to identify the felt needs of those who are served by the church library. The independent, autonomous church which believes in freedom in religions should help those whom the church serves to practice religious freedom as they learn of the Kingdom of God which is *within the individual*.

Church libraries should provide special services to meet the needs of the handicapped such as the blind, the deaf, the crippled, and the underprivileged. Provision made for such special services should be based upon the findings of further research in the field of church library service.

In church libraries where both secular and Christian education emphasis is coordinated, librarians should be recruited who have some basic public education professional training where such leadership is available.



The program of leadership training at the academic level in Christian education should include the study of library administration. Further research should be projected to weigh the values of providing such training, especially in the seminaries where the clergy and religious educational directors are trained.

Objective research should be continued by church library leadership to test the value of measurement in church library service. The entire field of administration, including management, supervision, and evaluation, should be studied and other standards developed, tested, and validated. Further testing and revision of the standards herein set forth should aid in the improvement of church library service.

2. *Criterion on Administrative Management.*—Those who plan church library service should be trained in the techniques of planning as well as in the *Church Library Manual*. The orderly development of man's understanding through experience and the enrichment of his mind deserves sound planning. The church library functions as a resource aid for the enrichment of the lives of Christians. Sound planning should characterize the administration of church library service.

The manual and other denominational literature upon the church library should be enriched from further research upon the techniques for committee work in administration. The summer workshops of the denomination should experiment in this research area and validate a set of procedures therefor.

If church librarians should know how to carry out their duties and if the scope of their responsibility touches the entire program of Christian education, then church librarians should have a comprehensive knowledge of the Christian leadership program advocated by the denomination.

Adequate provision should be made in local church library service in the areas of housing, equipment, environment, program, and promotion so that the use of library services will be initiated, directed, and sustained in a highly motivated atmosphere of learning and teaching.

The selection of materials for the library in Christian education should be studied by the denominational agencies and the local churches. A statement of principles thereon should be formulated and tested in experimental techniques of research. A broader basis than negative censorship should be found. The selection of materials should be for Christian educational ends. Selection should be made by personnel capable of weighing the educational values of the materials. The whole area of materials selection should be explored in research from the level of the seminary curricula to the local church library committee. Those who will lead the churches as clergy and those who will administer the program of Christian education and the church library should comprehend and utilize a sound basis for the objective selection of materials.



The problem of censorship and the *proscribed list* in the church library should be considered in subsequent research.

Further research should evaluate the significance of guided trips as a resource for learning and teaching in Christian education.

Research should be continued in the area of circulation as a problem in church library service where reference assignments are on a voluntary basis. How shall rules be formulated and carried out in a non-coercive group? This is a significant field for future study.

Research should be projected in the field of the organization and classifications of materials in the church library. It should be a purpose of such research to determine if the usual classifications of knowledge apply to a Christian education library where they may have no relevancy. Can a standard public library system be imposed upon Christian education library service? What nuclei of topics should be used for accessions of titles in church libraries? Significant problems for further study are in these areas.

3. *Criterion on Administrative Supervision.*—Research should be continued in the area of resource aids for supervision in church library administration.

The *Church Library Manual* should be revised and should give adequate, reliable, and constructive appraisal of resource aids for church library service other than denominational services. Too many respondents in this study annotated the question concerning the American Library Association, "Never heard of this organization. Would appreciate their address." Such a condition should be remedied.

Study should be made of bibliography development as a resource guide in Christian education. Likewise, research should be used to aid local church libraries in the development of techniques of objective measurement to be employed in the local program of church library service.

Supervision should receive more emphasis in the administration of Christian education. The denomination should study this area of administration and set forth curricular offerings which will be adequate for the need in this field.

In compliance with suggestions of conferees and based upon field observations, church libraries should provide an enriched reference service for Christian education. Many churches are located where a public library is not available. Many members of the churches cannot afford reference books. In addition, the denominational agencies responsible for Christian education leadership training should conduct research and develop basic principles and practices for the functions of the church reference librarian. The findings of studies in this area should be incorporated into the Christian education curricula at the college level and into the study course curricula at the denominational level.

Further research should test the effectiveness of various administra-



tive techniques other than the representative committee. Since supervision is a service to teaching based upon learning and since learning involves activities that are of a creative nature, special research should be directed to the study of the creative committee as an administrative technique of church library service.

4. *Criterion on Administrative Evaluation.*—Tentative standards were formulated in this study as the bases upon which evaluative measurement of church library administration might be projected. These standards were revised upon a basis of survey interviews, used as resources for the evaluation of a select group of church libraries and revised again upon the basis of the findings derived from their use in a survey questionnaire. These criteria as revised are recommended as the tentative bases for further study of church library service, for the improvement of the effectiveness of church library administration, and for the tentative definition and qualification of areas in which church library service may be evaluated.

A practical check list was formulated for the areas of evaluation of the criteria. The check list questions were revised in the light of survey interviews, a search of the literature, and use in measurement of church library administration. The check list is recommended as a tentative instrument of measurement. The check list is suggested as a resource to guide in the improvement of church library service.

#### CONCLUDING STATEMENT

Obviously the research reported herein can be only a beginning of an attack upon this problem. The criteria developed in this study should be subjected to refinement in the light of experimental research and the evaluation of practices in accordance with the criteria. Of course, no criteria of administration are ever finished. They must grow and develop in the light of a growing body of experience. Nevertheless, nothing is ever done without a beginning. It is hoped that this study has made such a beginning.



## MANAGEMENT PLANNING IN SECONDARY SCHOOLS

by HAROLD MAURICE WILSON \*

### THE PROBLEM

The purpose of this study is to develop tentative criteria for the guidance of management planning. Incident to the main purpose of the study, planning practices in representative schools having reputations for good management were surveyed. From the criteria which were developed and from the results of the survey, an evaluative check-list was formed.

### PROCEDURE

The library research drew upon the business, industrial, and governmental literature produced by American and foreign writers. The collections of the Library of Congress, the Library of the U. S. Office of Education, the Library of the Department of Agriculture, the Library of the National Education Association, and the Library of The George Washington University were drawn upon in this phase of the study.

From the results of the library research tentative criteria were formulated. These criteria were refined and validated by repeated criticism and revision in conference with planning specialists, professors of education, and administrators on the job.

In terms of the tentatively validated criteria, a lengthy survey instrument was prepared. Specialists in the U. S. Office of Education and the Executive Secretary, National Association of Secondary School Principals, National Education Association, suggested certain principals distributed throughout the 48 states, who had the reputation of doing a good job of administering their schools. From the names suggested, 266 principals of schools enrolling 500 or more pupils were selected. Despite the fact that the questionnaire required from one to three hours for completion, 244 or 92 per cent of the questionnaires were returned. The high percentage of return indicated the interest with which the questionnaire was received.

The returns from this questionnaire survey were used further to validate the criteria. The returns were also valuable as samples of current planning practice in well administered schools. Additional validation of the criteria was provided by group discussions with principals in Washington, D. C.; Virginia; and Maryland; and by continuing interviews with various specialists in planning and education.

The survey instrument was then transformed into a check-list for management planning.

\* A.B., A.M. 1948, The George Washington University; Ed.D. conferred May 31, 1950.



## RESULTS OF THE STUDY

*Selected References from the Library Research.*—The library research yielded very little detailed information on the subject of educational administrative planning. None of it was intended to concern itself with the subject in a comprehensive manner. It was helpful, however, in providing philosophical implications for this study and in giving an indication of the extent to which promising planning practices were developing and the nature of the new departures. Some of the references which were most helpful are listed in Chapter I and in the Bibliography. These references are drawn from business, industrial, governmental, and educational management literature.

*Tentative Criteria for Management Planning.*—The criteria and their elaborating specifications as they were eventually formulated are set forth below. Each specification is discussed in the dissertation; this discussion is omitted in the summary for the sake of brevity.

## Criterion One

*Management planning should grow out of an appropriate philosophic background oriented toward democratic, socially integrated, and educationally efficient planning.*

Those concerned with management planning need to be guided by a philosophic frame of reference. When appropriate, such a frame of reference furnishes planners with important directional guides which point the way toward which planning should move. Such a background acts as an evaluative field against which projected activities can be appraised for harmony. It also is a powerful integrating factor, since those operating within its framework can hardly escape its coordinating influence.

An appropriate philosophic background may be achieved in many ways and will rightfully vary from school to school according to the needs and goals of each school. Many of the elements of such a background, however, should be thought of as dynamic constants which remain relatively the same in all schools. The specifications listed below seem to contain essential common elements and should hold if the criterion above is to be realized.

Specification 1: The philosophic background should be compatible with the objectives commonly held for education in our democracy.

Specification 2: Principles that promote effective democratic interaction should be a part of the philosophic background.

Specification 3: The philosophic background should include a realistic conception of the values and limitations of group processes and of individual expertness and of the planning levels and conditions to which each is best suited.



Specification 4: The philosophic background should engender perspective.

Specification 5: Planning within the school should be articulated with the planning of other social institutions.

Specification 6: Planning within the school should be consistent with the educational plans of the school system and of the state—this consistency, however, ought not to hamper growth or limit creative action.

Specification 7: Planners should recognize that the school is influenced by a host of impinging forces originating in many cases outside the school itself.

Specification 8: Planners should recognize the unitary nature of the educational task.

Specification 9: The ends sought by planning should justify the expenditure of time, energy, and material resources exhausted in the planning process.

Specification 10: Planning should promote efficient action in the total school situation and be governed by a concept of educational efficiency.

Specification 11: The philosophic background should be understood and accepted by the planners.

#### Criterion Two

*The experiences and abilities of all available personnel should be utilized as fully as possible in management planning.*

The experiences and abilities present within and contiguous to the management planning situation should be drawn into the planning regardless of the position of their possessors. Members of the professional and non-professional staffs, the student body, and laymen in the community possess resources which should be utilized by the administrator in planning. The advantages of such a course of action are readily apparent. A full utilization of personnel resources increases the range of experience upon which planners can draw for practical guidance and information. It increases the potential creative power which can be brought to bear on management problems; since group thinking and diverse experimental backgrounds do much to encourage creative solutions. In addition, a course of action of this sort allows for democratic participation of personnel in the planning which affects them, and helps build attitudes that facilitate the execution of the plan. When the specifications below are met, much will have been done toward the full utilization of personnel in planning.

Specification 1: Those affected by the planning should have a voice in the planning commensurate with their capabilities for productive participation.

Specification 2: Planning (since it is a creative endeavor) should utilize the maximum range of personnel experience available.



Specification 3: Participants in planning activities should provide a representative range of pertinent expertness.

Specification 4: The school administrator should be thoroughly familiar with the experimental backgrounds and the abilities of the personnel of the school and utilize them in planning.

Specification 5: The school administrator and other members of the school staff should be familiar with the resources present in the community surrounding the school and utilize them in planning.

Specification 6: The school administrator, while utilizing the abilities of the school's personnel for planning purposes, should himself remain an active planning agent.

### Criterion Three

*Management planning should be provided an organizational outline which is functional, flexible, and an integral part of the school's administrative structure.*

Management planning activities should be conducted through a planned program. It is only when considerable thought has been given to all aspects of management planning requirements and an organization to meet these requirements has been designed, that an administrator can be certain that problems arising in all essential areas will receive attention. Such an organization helps eliminate marginal planning activities and adds to the efficiency of management. Equally important, it specifies a series of planning duties and relationships in such a manner that personnel are able to know what is expected of them and others. It very logically removes planning from the realm of expediency and develops a plan for planning.

The specifications below offer considerations concerning such a planning program.

Specification 1: Planning requirements should be met by action within a predetermined organizational outline which is familiar to all staff members.

Specification 2: The organization for planning should be functional.

Specification 3: The goals held for, and the conditions surrounding each planning activity should be allowed to determine the personnel and the type of planning used.

Specification 4: Whenever possible, planning activities should be scheduled during school hours and included in the work load of those so engaged.

Specification 5: The administrator should maintain enough control over planning activities to enable him to discharge his legal responsibilities.

Specification 6: A central body should be charged with directing and coordinating planning activities.



Specification 7: Planners should be definitely informed of the nature of their assignments, the planning duties expected of them, and the administrative arrangements made to help carry them out.

#### Criterion Four

*The attitudes, skills, and procedures desirable for management planning should be acquired and used by all participants.*

An appropriate philosophic background, a determination to use fully personnel resources, and an efficient organizational outline are desirable and necessary but will not be productive unless the people engaged in planning are equipped to do the job. In order that personnel who are to participate in planning have a reasonable chance of success in their activities, they need to possess desirable attitudes and skills and be acquainted with certain planning procedures. In the last analysis the quality of personnel functioning in these areas is, if anything, of greater importance than any of the other requirements set forth in the preceding criteria. The administrator of a large secondary school unlike administrators in industry, for instance, has little opportunity to shop around for personnel who are especially talented in these areas. His personnel have long tenure and he must utilize them without the expectation of a selective turnover, especially since these attributes are not primary considerations in their employment. Hence, it is important that he identify the qualities and procedures desirable and help personnel acquire and gain increasing power in utilizing them. Some of these attitudes, skills, and procedures are specified below.

Specification 1: Personnel participating in planning should be afforded guided experiences in acquiring desirable attitudes, skills, and procedures.

Specification 2: Responsible attitudes and understandings concerning planning duties and relationships should be developed.

Specification 3: It should be commonly understood that planners should seldom rely on compulsion to keep their plans in operation.

Specification 4: An understanding of the interdependence of past, present, and future plans should be developed.

Specification 5: Those engaged in planning should accept resistance to change as normal and attempt to anticipate the reasons for and the results of such resistance.

Specification 6: Skill should be developed in promoting intercommunication among planning personnel.

Specification 7: Skill should be developed in improving methods of group functioning.

Specification 8: Skill should be developed in detecting and using significant sociometric factors of the planning group and of the school community.



Specification 9: Skill should be developed in integrating the ideologies, needs, and goals of the participants with the common goals of all-school planning.

Specification 10: The purpose of each planning activity should be clearly understood.

Specification 11: Those engaged in planning should keep their attention focussed on the planning objective.

Specification 12: Skill in using problem solving processes as a method of solving planning problems should be developed.

Specification 13: Since everyone cannot engage in every planning activity, some means of reporting progress back to the individuals and groups not participating should be provided.

Specification 14: Important experiences and abilities possessed by those not directly participating in the planning should be brought to bear on the problem.

Specification 15: The form of the plan itself should facilitate the execution of its purpose.

#### Criterion Five

*The entire management planning program and the plans developed through its activities should be subjected to continuous, cooperative, and comprehensive evaluation.*

The planning program should be judged as successful to the extent that the plans themselves are successful in making actual service contributions to instruction. Evaluation is essential to determine whether these contributions are being made both in the quantity and quality necessary to justify the existence of the present form of the program. Such evaluation should be continuously and thoroughly applied to all phases of planning.

The specifications below set forth considerations which will help make such an evaluation productive.

Specification 1: The objectives of management planning should be subjected to evaluation in terms of their harmony with the objectives of education and the philosophy of the school.

Specification 2: The means used to achieve progress toward the objectives held for management should be subjected to evaluation in the light of appropriate criteria.

Specification 3: The evaluation of plans and activities should be conducted according to a systematic procedural plan. The following series of activities is recommended:

- a. State the purpose of the plan or activity as clearly and definitely as possible.
- b. Define the purpose in terms of desired behavior.



- c. Identify situations in which the desired behavior may be observed.
- d. Select or develop evaluative instruments or techniques appropriate to the purpose and the behavior which are to be evaluated.
- e. Use the instruments or techniques in the identified situations to collect evaluative data.
- f. Subject the data to study and interpretation.

Specification 4: The evaluation of planning should be a cooperative process.

Specification 5: The evaluation of planning should be a continuous process.

*The Findings of the Questionnaire Survey.*—The amount of promising management planning being carried on in the public schools is somewhat greater than was expected. About 10 per cent of the selected schools follow in practice most of the criteria and their elaborating specifications. These schools were widely distributed throughout the country. They were not confined to any one section of the country and did not cluster together. Thus, geographical location could not be used to explain their preeminence. Probably the best explanation for the superiority of these schools lies in the quality of the administrative leadership which is provided them. They have principals who believe in planning and who do something about it in a comprehensive manner.

Another group of schools—about 20 per cent—function well in certain areas but are doing nothing much about other areas. It may be that these areas are being neglected because they have not been called to the attention of the administrator. The principals in this group are interested in planning and are doing a fine job. Their planning could be improved by attention to the shortage areas. This study should be of help to this group by directing their attention to the neglected areas.

The remainder of the schools are functioning rather haphazardly. They do certain things well but neglect important considerations in several areas. Evidently not much prolonged consideration and study have been given to planning. The administrator may have only recently launched the planning program or it may have grown piece-meal without any special attention having been given to it. This study should help these administrators by suggesting the comprehensiveness of the planning function.

In general, utilization of the criteria is about 70 per cent. Some of the major areas which are being most often neglected follow.

A need exists for a wider use of the various types of personnel available for planning. Administrators evidence their awareness of the value of teacher participation in planning by utilizing their abilities in many kinds of planning activities. They do not, however, utilize the non-professional staff, members of the student body, or members of the community to the extent that seems desirable. Interested laymen can render



valuable planning services but in only a few schools are they used to any extent.

More attention needs to be given to the organization of planning activities. The personnel now being used probably could be utilized to better advantage if more of the schools possessed an organizational frame-work within which their activities could be ordered and related. Many schools have given very little consideration to this aspect of planning and their organization or lack of organization is a result of chance. A careful consideration of the planning organization should pay dividends in the more effective use of personnel.

Planning personnel should be more concerned with the ultimate effect of their plans upon human behavior. Too often the individual is submerged in the planning process. More attention is paid to expediency, logic, so-called efficiency, and professional status than to the people to be affected by the plan. The activities which demonstrate this consideration should be extended to more schools.

Planning activities could also be made more effective if the findings of group dynamics research were put to use. The skills needed by individuals as members of groups and the methods of improving group functioning are vital planning skills and need to be used more often by administrators. Indeed the whole area of skills needed for planning requires attention. Development of these skills should be an important part of the inservice training program of the school. Too often they are assumed to be present and even when obviously absent no planned program of training is utilized to remedy the shortage.

Another neglected area of importance is that of evaluation. Planners need to be more evaluation conscious; neither planning activities nor plans are being evaluated to the extent that they should be. The two-fold nature of this evaluation needs to be more widely appreciated—the evaluation of objectives and the determination of the extent of progress toward these objectives. The two-fold nature of the determination of progress also needs to be more widely realized—the evaluation of the planning activities, a constant process; and the evaluation of the plans or programs of plans, which, although it has elements of continuity, is a more periodic process.

The questionnaire survey called special attention to the need for extending a more intensive use of these activities in particular as well as revealing the need for a more general use of all the others.

*A Suggested Check List for Management Planning.*—The criteria as developed are guides for management planning. They are not, however, readily usable until translated into action patterns. It is easy to assume that if a school is doing even a little in regard to a criterion that the criterion is being met. If, however, certain action patterns are specified in the form of a check list, more definite indications of use or neglect in



regard to a criterion can be observed. The instrument designed for this purpose is a check list, not a rating scale. No norms or weighting of items have been attempted. Its thirty pages consist of seventy-nine questions containing 320 response-items most of which are to be checked on a four-point scale. The check list is similar to the questionnaire but contains many modifications made as a result of applying the questionnaire. Thus, it has been refined and reorganized for the specific purpose of providing principals and other school planners with a means of determining the status of their own planning activities.



## THE MANAGEMENT OF ELEMENTARY SCHOOLS

by RALPH FREDERICK WILLIAM BRIMLEY \*

### THE PROBLEM

This is a study of the management of elementary schools. Management, as applied to elementary schools, is the administration incident to efficient operation of the school in accordance with the legal authority and responsibility vested in the principal and in conformity with sound educational theories.

Administration, as used in this study, includes management, supervision, and evaluation. The study is concerned with the first phase of administration, management.

For purposes of analysis the study has been broken into the following subproblems of elementary school management: (1) school plant and grounds, (2) instructional supplies and equipment, (3) school assembly, (4) guidance, (5) public relations, (6) individual school funds, (7) library, (8) pupil services, (9) student government, (10) lunchroom, and (11) school records.

### PROCEDURE

As a result of a careful study of the literature of elementary school administration, criteria of elementary school management were formulated for each of eleven areas of management. The first step was to state the fundamental assumptions basic to each area. Next, the criteria, followed by their specifications, were drawn up.

The criteria were submitted personally to leaders in the field of elementary school administration. Conferences with these leaders were of substantial length, usually two or more hours. The criticisms and suggestions were carefully noted.

To assist in the validation of the criteria a check list to determine practices was prepared for each area. This check list was sent to the principals of well-managed schools. It was assumed that if the criteria were sound, they would be found in operation in these schools.

A total of 260 double postcards were sent out to principals asking if they would be willing to assist in the study. Of this number 180, or 69 per cent, were returned.

Check lists were sent to 175 principals who had said that they would participate in the study. Several principals had to be reminded in order to get the check lists returned, but final returns were 90 per cent of those sent. Fourteen more were returned too late to be tabulated.

\* B.S. 1928, North Carolina State College; A.M. 1940, University of North Carolina; Ed.D. conferred November 11, 1950.



## CRITERIA

As a result of (1) an examination of the literature in the field of school management and (2) discussions with leaders in the field of elementary school administration, the following criteria for the determination of effective elementary school management were formulated. A few of the conditions necessary to meet the criteria are also noted.

## THE MANAGEMENT OF THE SCHOOL PLANT AND GROUNDS

## Criterion One

*The management of the school plant and grounds should be such that instruction is facilitated.*

Routines of building maintenance and cleaning should not interfere with instruction. Building changes, repainting, alterations, and additions should be planned with the view to providing the best possible environment as a background for learning.

## Criterion Two

*The management of the school plant and grounds should be such as to protect the health and promote the safety of all personnel.*

Alterations and additions to the buildings and grounds should be planned with special attention to the promotion of healthful and hazardless conditions. Provision should be made for the routine inspection of the buildings and grounds and for action to eliminate health and safety hazards. Of course, adequate heat, ventilation, illumination, and water should be provided at all times. Provision must be made for the safe removal of all personnel in case of fire.

## Criterion Three

*The management of the school plant and grounds should be such as to protect the building and grounds against vandalism.*

In addition to adequate and regular inspection, efforts should be made to improve public attitudes toward the protection and care of school buildings.

## Criterion Four

*The management of the school plant and grounds should be such that maximum efficient use is promoted.*

Definite scheduling should be made in the use of all rooms. Management of the building should provide for the use of the premises by community groups.



## THE MANAGEMENT OF INSTRUCTIONAL SUPPLIES AND EQUIPMENT

## Criterion One

*The management of supplies and equipment should facilitate instruction.*

Teaching time should not be robbed to care for the routines of supply and equipment management. Supplies and equipment should be of the quantity and quality necessary for the job at hand. Each teacher should know how to use skillfully the supplies and equipment available.

## Criterion Two

*Each teacher should know what supplies and equipment are available for his use.*

Each teacher should possess or have ready access to a list of instructional materials on hand. This list should be revised periodically with supplementary announcements of changes and added materials.

## Criterion Three

*Supplies should be readily available to the teacher as needed, and getting these supplies should require a minimum of time and effort.*

A stock of supplies used in the school should be maintained in quantities sufficient to carry the school through the replacement period. A suitable place should be provided for storage of a stock of supplies within the school. Supplies should be sent to the teacher on requisition, and should arrive at or before the time specified by the teacher.

Blank forms for the requisition of supplies should be given to the teacher with a clear explanation of how these forms are to be used. A petty cash fund should be set up for all teachers to permit them to purchase small items which are not stocked by the central agency of the school.

## Criterion Four

*Every teacher should know or have ready access to knowledge of the balance remaining in her instructional supply fund so that she may plan effectively.*

A card or ledger sheet should be kept for each teacher showing the amount spent and the unexpended balance. The teacher should be informed periodically of her unused balance.

## Criterion Five

*Purchase of supplies should be in accordance with sound business principles.*



Purchases should be made in quantity lots on a bid basis, and materials should be purchased according to approved specifications. Originally specifications of materials should be defined by those persons best qualified through knowledge gained in their use.

#### Criterion Six

*The principal should establish a system that will enable him to fix responsibility for the care and economical use of materials without undue use of time and effort.*

All persons must have clearly defined responsibilities in regard to the proper use of materials and supplies. Laws and school board regulations should be known and understood by teachers, pupils, and administrators alike.

### THE MANAGEMENT OF SCHOOL ASSEMBLIES

#### Criterion One

*School assemblies should be managed in a democratic manner.*

The basic outline of the year's program should be an outgrowth of cooperative planning of the school staff. Assemblies should be planned for the benefit of the audience as well as the performers.

#### Criterion Two

*School assemblies should be planned as a part of the total school program.*

All programs should provide educational benefits in keeping with the aims of the school and should grow out of classroom work. They should provide for wide participation and be held at definitely specified times. Provision for the satisfactory movement of pupils between classrooms and assembly hall should be made. Without adequate plans, undesirable concomitant learning may offset the desirable outcomes of the assembly program.

#### Criterion Three

*The school assembly program should include as many forms of presentation as possible.*

Variety should grow out of the different educational objectives of assemblies.

#### Criterion Four

*So far as is possible, school assemblies should be free and accessible to all pupils.*



Pupils ought not to be excluded because they cannot pay admission fees. Outside programs or special entertainment should be free and accessible to all pupils.

#### THE MANAGEMENT OF GUIDANCE

##### Criterion One

*Guidance is the responsibility of the whole school staff under the direction of the principal.*

The principal should assume responsibility for the entire guidance program.

The major portion of the guidance functions should be provided by the classroom teachers. Teachers need to be instructed in their guidance responsibilities. They cannot do the job unless they know what is to be done, and are given needed instruction in procedures.

##### Criterion Two

*All resources that have guidance values should be utilized.*

Community social agencies should be fully utilized.

#### THE MANAGEMENT OF PUBLIC RELATIONS

##### Criterion One

*The people of the community, especially the parents, should be kept fully informed concerning the school.*

There should be adequate provision for the collection, processing, and dissemination of information. In school interpretation the greatest emphasis should be placed upon purposes and long-term goals. The information disseminated should present a true picture of the school.

##### Criterion Two

*The program of public relations must win the sympathy of the public.*

The school should understand and support the worthy aims of the community. If the school is to enlist the active support of the public for its projects, it must similarly support some of the worthy projects of the community.

##### Criterion Three

*Fruitful participation properly controlled should be encouraged.*

School planning should include wide community participation and available talents found in the community should be utilized fully. Bad



public relations are always caused. The best way to improve them is to ferret out the causes and systematically work for their removal.

#### THE MANAGEMENT OF INDIVIDUAL SCHOOL FUNDS

##### Criterion One

*Fund activities should be consistent with the aims and objectives of the total instructional program.*

The planning, raising, and spending of school funds should take as little instructional time as possible. Wherever possible, fund-raising activities should be utilized to motivate and make more realistic the instructional program.

##### Criterion Two

*The handling of such school funds should be an enterprise shared jointly by all those interested in the program of the school.*

Although the principal is ultimately responsible for the management of all school funds, he should delegate as much as possible of this responsibility. For instance, all interested groups should have an opportunity to share in the planning.

##### Criterion Three

*Adequate provision should be made for the accounting and auditing of all funds.*

A simple, definite, uniform system of accounting should be effected and rigidly followed. All funds should be banked; payments should be made by check; and accounts should undergo an independent audit periodically.

#### THE MANAGEMENT OF THE LIBRARY

##### Criterion One

*The library should be a service agency whose function is to organize and make accessible to teachers and pupils many kinds of study materials.*

The main function of the library is the distribution of books to the places where they can be used most effectively. It should house and make available for use materials other than books, such as audio-visual and other teaching aids.

##### Criterion Two

*Definite instruction in the use of the library and library materials should be given.*



Teachers should be informed of the services available and how to use them. Regular periods of library instruction should be included in the school program. There should be instruction in study skills.

#### Criterion Three

*The library should be under the direction of trained library personnel, responsible to the principal.*

In order for the school to secure the maximum efficient use of the library, trained library personnel is needed.

#### Criterion Four

*Accepted library practices should be used.*

The central library should supply books to the classroom libraries and borrow books from other public collections.

### THE MANAGEMENT OF PUPIL SERVICES

#### Criterion One

*Pupil services should be encouraged as long as they provide educative experiences.*

The organization of pupil services should include wide and varied pupil participation; but should be kept in proper balance with the rest of the educational program. There should be adequate management and coordination of the pupil services. The needs and welfare of the pupil should be considered before accepting his services.

### THE MANAGEMENT OF STUDENT GOVERNMENT

#### Criterion One

*Student government should be an outgrowth of school needs.*

Children should have a chance to formulate rules that enable them to play together. They should share in planning classroom instruction, and have a larger share in planning extra-class activities.

#### Criterion Two

*Participation in student government should be democratic.*

There should be a respect for human personality; all pupils should have a part in the student government; and freedom of speech should be protected.

#### Criterion Three

*The authority and responsibility of all concerned with student government should be clearly defined and understood.*



It should be understood that in certain areas of legal responsibility the principal must have the power of veto. The responsibilities of the students in play areas should be clearly defined. Both teachers and pupils should understand clearly their responsibilities in the planning of instruction, and the limitations placed upon them in extra-class activities.

#### Criterion Four

*Guidance without domination should be provided for those participating in student government.*

Growth in leadership and self-discipline comes through practice. Guidance, not domination, is needed. It must be the pupil's self-government, not a teacher-dominated activity.

### THE MANAGEMENT OF THE LUNCHROOM

#### Criterion One

*The lunchroom should be considered an integral part of the educational opportunities of the school.*

The lunchroom should be under the management of the school which should consider it in terms of service, instead of profit. Management of the lunchroom should capitalize on the opportunities for teaching basic facts or skills in everyday living. Details should be routinized.

The principal, as responsible head of the school, should delegate the authority and responsibility necessary to get the lunchroom job done.

#### Criterion Two

*The lunchroom should be operated in accordance with basic business principles.*

A simple, definite, uniform system of accounting should be effected and rigidly followed. All funds should be banked; payments should be made by check; and records should undergo an independent audit periodically. A continual inventory should be kept.

### THE MANAGEMENT OF SCHOOL RECORDS

#### Criterion One

*Those records required by law or significant to the educational program should be kept.*

Records showing evidence of aptitudes, the nature of achievement, and the status of health will be needed. Evidence of growth in character should also be recorded. It should be recognized that some records are permanent by nature while others should be kept for a period of time and then destroyed.



## Criterion Two

*Records should be accessible to those who may need to see them.*

Central records should be housed in such a way as to make them accessible to the teachers at all times without disturbing the principal. Certain records should be kept by the classroom teacher.

## Criterion Three.

*Records should be safeguarded.*

Records should be housed in fireproof containers and their use controlled by uniform regulations.

## Criterion Four

*Records should be cumulative and in a form to permit efficient storage.*

Records should be such that they present a complete picture, not just a fragment. The form needs to be compact in order that efficient storage can be provided.

## RESULTS OF THE SURVEY

A comparison and study of the practices of 137 selected elementary schools indicated that the foregoing criteria were sound. Although, as might be expected, actual practices sometimes failed to measure up to a specific criterion, no evidence was brought to light that indicated that the criterion in question should be changed.

Practices failed to measure up to the criteria in the following areas: (1) inspection of the school plant, (2) efficient use of the school plant and grounds, (3) routines of supply, (4) application of business principles to supply, lunchroom, and financial management, and (5) library management.

Practices were more satisfactory in the management of (1) school assemblies, (2) public relations, and (3) pupil services.

As will have been noted, the criteria used in the study were commonsense in nature and their validity often self-apparent. Nevertheless, even in well-managed schools, practices measured in the light of them were, on the whole, far from satisfactory. It may be assumed that management practices in average and poor schools are much worse. Clearly much more attention needs to be given to this phase of elementary school administration than has been given in the past.



## THE RELATIVE EFFORTS OF THE STATES TO SUPPORT PUBLIC EDUCATION

by RALPH CALVIN GEIGLE\*

This study is concerned with: (1) the measurement of the relative efforts of the states to support public education; (2) the computation of a reliable index of expenditure; (3) the discovery of relationships between the factors "effort", "expenditure", and "ability"; (4) the identification of trends, if any, existing in each of these factors; (5) the examination of three refinements of fiscal indexes; and (6) an appraisal of the effect of federal aid on expenditures in the several states. The study covers each biennial year from 1929 through 1947.

Increasing difficulty in finding adequate support for social services has, in recent years, heightened interest in studies of state fiscal abilities. Since the public schools constitute one of the largest and oldest social agencies in the state, it is not surprising that many of these studies have been made by educators. However, other groups also have been interested in the relative fiscal abilities of states. Those concerned with federally aided unemployment relief and old-age benefits naturally have been concerned with this problem and have engaged in studies designed to throw light upon it.

All such studies have revealed great variance in the relative fiscal abilities of states and the inability of the poorest states to maintain even minimum standards for essential services. However, few have covered periods long enough to show significant trends. This study, covering a span of 10 bienniums, was undertaken in part to reveal such trends.

Since in this field of study there is some confusion in terminology, it was deemed necessary to define the more basic terms used. Such definitions follow.

*Basic index of state fiscal ability.* Total income payments to individuals as reported by the Department of Commerce.

*Current expenditures.* All expenditures in support of public schools exclusive of interest, debt service, and capital outlay.

*Effort to finance education.* The relation between the amount expended by a state of public schools and its financial resources measured in terms of its total individual income payments.

*Adjusted current expenditures.* Current expenditures reduced by both federal aid and subsidies, because such funds are available for school purposes without effort on the part of states to provide them.

*Unit of educational need.* Each child 5 to 17 years of age, inclusive.

\* A.B. 1935, Susquehanna University; A.M. 1940, Columbia University; Ed.D. conferred November 11, 1950.



## FISCAL ABILITIES OF THE STATES TO SUPPORT PUBLIC EDUCATION

Examination of the data for the respective geographical regions revealed that the Pacific, Middle Atlantic, and New England regions have been consistently the wealthiest; while the southern regions have been the poorest. On the basis of income payments per school-age child there was relative consistency in the ranks held by the respective states over the period of the study. Twenty-five of the forty-eight states shifted rank, up or down, at most two places. Conspicuous shifts in rank between 1929 and 1947, included New Hampshire, which declined ten places; Kansas, which gained ten places; and North Dakota, which gained seventeen places. The New England states have generally declined in rank, while the South Atlantic states have gained in rank. In 1929 the top-ranking state had income payments per school-age child seven times as great as the state of lowest rank. In 1947, the ratio between the states of highest and lowest rank was only nine to two. Thus, the variance in fiscal ability as measured by income payments showed a significant decline during the period covered by the study. Nor was this merely a phenomenon of the extremes of the distribution, since the interquartile range decreased in proportion.

Using 1929 as the base year, index numbers indicating fiscal ability were computed for each year. Disregarding dollar values, the fiscal ability of the United States as a whole per school-age child dropped 45 per cent below the 1929 level in 1933. The 1929 level was not regained until 1941, but following that year large increases above the 1929 level were shown. Since 1941, the greatest gains have been made by southern states and the least by Middle Atlantic, New England, and Pacific states.

## EXPENDITURES OF THE STATES TO SUPPORT PUBLIC EDUCATION

States spending the most for education were those on the Pacific and Middle Atlantic coasts. The educational expenditures of North Central, New England, and Mountain states tended to be average, and of course the smallest expenditures were made by southern states.

As was expected, expenditures for schools were lowest in 1933. After that they gradually increased in all states, with large increases between 1945 and 1947. The sharp rise in expenditures came four years after similar increases in income.

The ranks of states in accordance with expenditures per school-age child changed greatly during the period covered by the study. Massachusetts declined thirteen places on the scale; North Dakota, sixteen; and Colorado, ten. On the other hand, Utah gained thirteen places, and Illinois, twelve. However, at the top and bottom of the scale there was relative stability. Throughout the period, Nevada, California,



New Jersey, and New York have made the highest expenditures; while Georgia, Arkansas, and Mississippi have consistently occupied bottom positions.

As was noted in the study of fiscal ability, there was a marked decline in the variance of expenditures per school-age child during the period of the study. For instance, in 1933, Nevada, the state spending the most per school-age child, expended  $7\frac{1}{2}$  times as much as Arkansas at the bottom of the distribution. In 1947 Nevada spent only 3.77 times as much as Mississippi, the lowest state (\$206.91 compared with \$54.89). This equalization trend was confirmed by statistical analysis of the data.

To study the effect of federal aid on the variance of expenditures per school-age child, calculations of the estimated effect of the Barden bill were made. It appears that if enacted it would reduce the range of variance by about 16 per cent. The twelve richest states would receive about 13 per cent of the total appropriation or \$4.09 per school-age child, while the twelve poorest states would receive about 55 per cent of the total appropriation or \$22.57 per school-age child.

#### EFFORTS OF THE STATES TO SUPPORT PUBLIC EDUCATION

To determine relative efforts by states to support public education, effort indexes were computed using 1929 as the base year.

Considering the United States as a whole, effort to support education was greater between 1931 and 1941 than in 1929; or, putting it another way, the United States spent a larger percentage of its income on public education. After 1941 there was a sharp decline in effort. This tendency of expenditures to lag behind income was partially abated after 1945, but in 1947 the country was still making about 10 per cent less effort to support education than in 1929. Only the southern states were equalling 1929 efforts in 1947.

Throughout the period of the study, the Mountain and West North Central states spent the largest proportion of their incomes on education. During the same time, the New England states steadily lost rank on an effort scale; while the southern states made corresponding gains.

Variance in effort has also declined between 1929 and 1947, although the decline was smaller than that shown by fiscal abilities and school expenditures. In 1929 the effort of North Dakota was greatest and was 3.56 times that of Delaware which was least. In 1947 the effort of the highest state on the effort scale was only 2.29 times that of the lowest state on the scale. With the exception of the last subject year, Maryland has exerted the least effort to support public education, while North and South Dakota and New Mexico have exerted the greatest



efforts. The general tendency of variance in effort to decline was supported by statistical analyses.

#### RELATION OF EFFORT TO EXPENDITURE

Over the period covered by this study there was no significant correlation between the efforts exerted by the respective states to support public education and the amounts actually expended to support that education. In some states where expenditures per school-age child are high, great effort has been exerted. In other states it requires little effort to provide a high level of support. By the same token, there are states where the expenditure per school-age child is low but it requires a relatively large proportion of income payments to support this low level. Analyses revealed that in 1947 fifteen states made efforts greater than the United States average, yet all failed to provide expenditures per school-age child equal to the national average. Nearly all of these were southern states. They also revealed that eight of the states made less than average effort, yet provided more than average support per child.

#### RELATION OF ABILITY TO EXPENDITURE

As might be expected, there is a high correlation between the abilities and expenditures of the states to support public education. The correlation was highest in 1937 when it reached  $+0.891$ . If causation can be inferred, it is probable that the fiscal abilities of the states is the major determinant of how much is spent per school-age child. Calculation of "coefficients of determination" corroborated this finding. However, considering the United States as a whole, increases in expenditures for public education have not kept pace with increases in fiscal abilities.

#### RELATION OF EFFORT TO ABILITY

Efforts and fiscal abilities of the States to support public education consistently showed negative correlation. For instance, in 1947 the coefficient of correlation was  $-0.629$ . These correlations indicated that states of great fiscal ability tend to put forth less effort in support of public education than those of low fiscal ability. Generally speaking, the greatest efforts are made by those states with the lowest fiscal abilities. Exceptions to be noted are New Jersey, Washington, Oregon, and Montana where above-average effort is associated with above-average fiscal ability. Between 1929 and 1933 the fiscal ability of the Nation dropped 26 per cent but school expenditures remained much more steady, dropping only 3 per cent. Between 1941 and 1943 fiscal abilities increased 53.4 per cent while expenditures increased only 12.3 per cent. Additional statistical analysis confirmed the finding that



fluctuations in school expenditures tend to be less than fluctuations in fiscal abilities.

#### ADJUSTMENT OF STATE EFFORT INDEXES BASED ON PRIVATE AND PAROCHIAL SCHOOL ENROLLMENTS

It has occurred to some that the degree of variability recorded can be partially explained by the presence of varying percentages of children of school age attending private and parochial schools. This possibility was explored.

Analyses of the data show small increases in the percentages of children enrolled in private and parochial schools during the period of the study. After reaching a low point (9.06 per cent in 1935) during the depression, the percentage enrolled in private and parochial schools increased with some consistency to about 11 per cent in 1947. Rhode Island enrolled 28 per cent of its children of school age in private and parochial schools in 1947. In the same year less than 3 per cent were so enrolled in 13 states.

If it is assumed that the cost per pupil enrolled in private and parochial schools is the same as that in public schools, inclusion of private and parochial school enrollments makes a number of changes in the ranks of states according to effort. For instance, based on 1947 data Vermont would gain thirteen places and Georgia would lose ten places. The wealthiest states have the greatest proportion of children in private and parochial schools and thus would show the largest increases in effort indexes if private and parochial school enrollments were included in the calculations.

#### ADJUSTMENT OF STATE ABILITY INDEXES BASED ON VARYING PERCENTAGES OF CHILDREN IN A POPULATION

Harold F. Clark has suggested that the amount of education available is not in simple inverse ratio to the number of children to be educated. Instead, he is of the opinion that twice the number of children in relation to the adult population is likely to reduce to one-fourth the amount of education that can be supplied for each child. This suggested formula was applied to the data used in the study with some interesting results.

In 1947 in the State of South Carolina there was approximately one adult for each child, while in New York and New Jersey there were more than two and one-quarter adults per child. The application of Clark's suggested formula to these states indicated greater disparities in educational opportunities than the earlier calculations of this study. When applied to all the states, fiscal ability ranks were considerably changed. For instance, New Hampshire gained ten places and North Dakota lost eight places.



ADJUSTMENT OF STATE EFFORT INDEXES BASED ON THE AMOUNTS  
WITHDRAWN IN THE FORM OF FEDERAL TAXES

Tax incidence data were either computed or were available in memoranda of the Bureau of Research and Statistics of the Social Security Administration. These were used to determine the effects of the federal tax system upon income payments. In 1941, the "federal tax drain" in Delaware was more than three and one-half times that in Mississippi, while that in Nevada was considerably more than twice as great as that in North Dakota. In 1945, the drain in Delaware was approaching 40 per cent of total income payments while in Nevada, California, Illinois, New York, and Rhode Island those taxes having incidence on individual income payments approximated 20 per cent. During the period of the study the number of states seriously affected by federal incidences tended to increase. In terms of effort ranks for 1945 (adjusted and unadjusted), it was noted that pronounced shifts upward occurred for Delaware, Nevada, New York, Michigan, and Pennsylvania, while downward shifts occurred in the cases of Mississippi, Arkansas, Alabama, and Vermont. If, in calculating the efforts of states to support public education, federal taxes are taken into consideration, Delaware, Nevada, New York, Michigan, and Pennsylvania move upward on the effort scale and Mississippi, Arkansas, Alabama, and Vermont move downward.

It is evident that indexes of fiscal ability and effort should take into consideration the effects of federal taxation as well as private and parochial school enrollments.



